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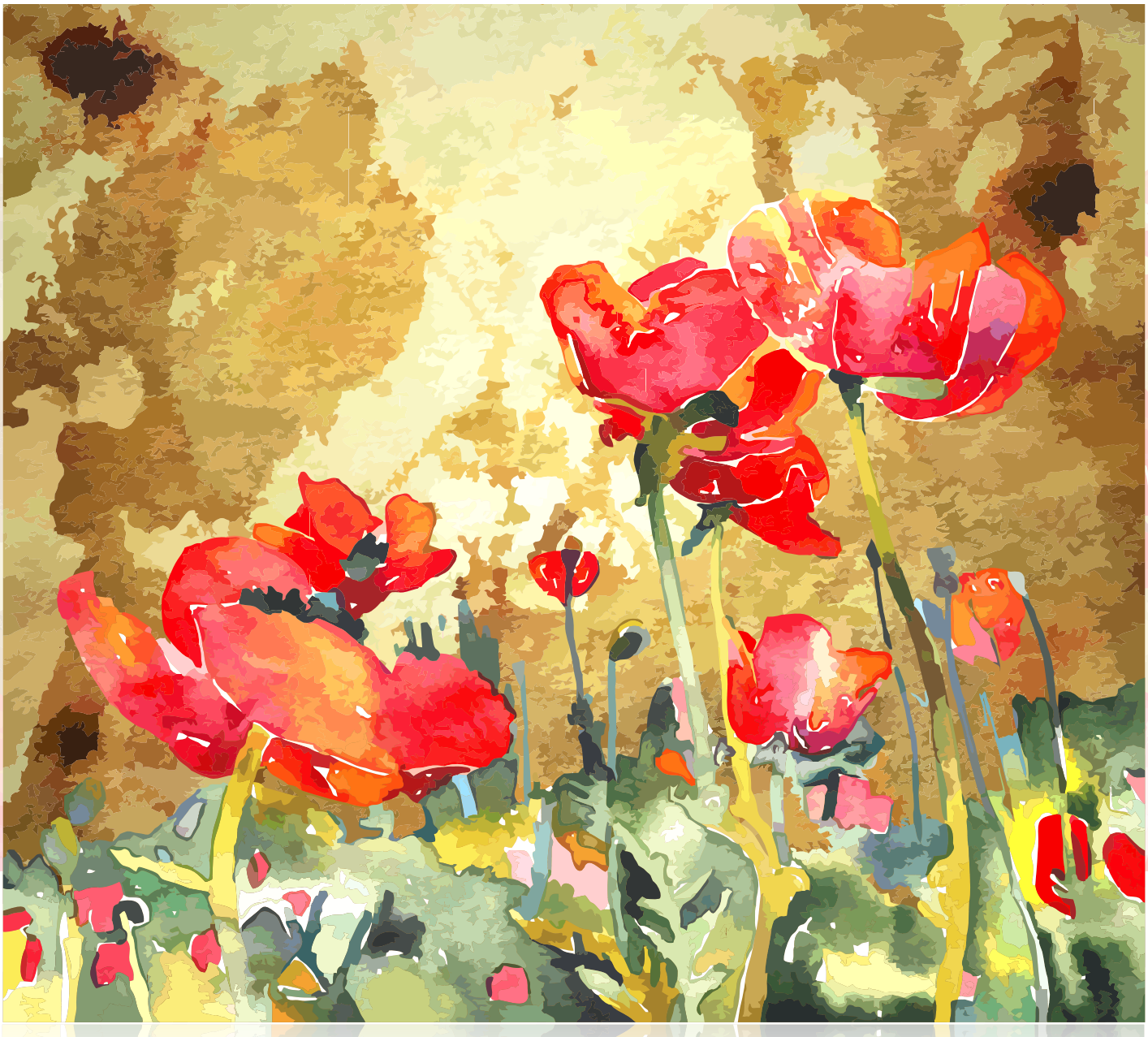

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483 - A 90-YEAR-OLD WOMAN WITH INVASIVE LOBULAR CARCINOMA SUCCESSFULLY TREATED WITH CHEMOTHERAPY: A CASE REPORT

Isabela Caldas Borges[1], Luís Eduardo Matoso Vieira[1], David Barbosa Duarte Vidal[1], Milena Melgaço Melo[1]

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Invasive lobular carcinoma is the second most common type of invasive breast cancer. Specific information regarding its gold standard treatment is still very sparse, especially in older patients aged 80 years or more, or in more severe cases. Therefore, studies that show this tumor's response to different kinds of treatment are still very necessary. A 90-year-old female patient, G5P4A1, with a familiar history of breast cancer (mother and sister), presented in March 2019 with a suspicious nodule on the right breast, measuring 2.6×1.9 cm at the physical examination. There were no palpable lymph nodes. Further investigation with ultrasound (US) showed an irregular solid hypoechoic nodule measuring 2.9×2.3 cm on the right breast, BI-RADS 6. Anatomopathological examination revealed an invasive lobular carcinoma; histologic grade II and an immunohistochemistry report indicated the expression of hormone receptors (ER+ 80%, PR+ 70%) and a cell proliferation rate (Ki-67) of 10%, whereas there was no expression of HER2. Clinical staging was T2N0MX (inoperable stage IIa). The patient then started chemotherapy with Fulvestrant + Denosumab in April 2019, with 10 sessions of this combined regimen (in April 2019, July 2019, August 2019, September 2019, November 2019, December 2019, September 2020, November 2020, December 2020, and January 2021), which was switched in 6 months (in April 2019, May 2019, June 2019, January 2020, August 2020, and October 2020) to sessions of a Fulvestrant-isolated regimen. The nodule size was evaluated with US throughout the treatment, showing constant regression: 2.2×1.8 cm (June 2019), 1.84×1.05 cm (July 2019), and 0.8×0.7 cm (September 2019 and August 2020). The chemotherapy sessions ended in January 2021, when she also had her last medical evaluation. The newest US she brought on that occasion showed that the solid nodule referred to in the most recent previous examination on the right breast had no current US expression (BI-RADS 1). The patient exhibited an excellent response to the chemotherapy. Hence, this form of treatment emerges as a valid and useful tool in the therapeutic management of invasive lobular carcinoma.

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4 - ABBREVIATED MRI PROTOCOL TO EVALUATE RESPONSE TO BREAST CANCER NEOADJUVANT CHEMOTHERAPY

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Introduction: Abbreviated MRI protocols have been proposed to reduce examination time, patient discomfort, and costs for breast cancer screening. However, an abbreviated MRI protocol for assessing neoadjuvant chemotherapy in breast cancer is yet to be explored. ***Objective:*** We sought to develop an abbreviated MRI protocol to evaluate the response to neoadjuvant chemotherapy treatment for invasive breast cancer carcinoma with diagnostic performance equivalent to that of the full protocol. ***Methods:*** This was a retrospective, single-center, cross-sectional study. This study comprised 210 women diagnosed with invasive breast carcinoma of no special type who underwent breast MRI after neoadjuvant chemotherapy between 2016 and 2020 in Curitiba, PR, Brazil. Breast MRI scans were reevaluated, first with access only to axial 3D SPAIR without contrast and first post-contrast time (two sequences); next to the second post-contrast time (three sequences); then to the third post-contrast time (four sequences); and finally, to the full protocol (seven sequences). The diagnostic performance (sensitivity, specificity, positive predictive value, negative predictive value, and accuracy) of the three abbreviated protocols and the full protocol was analyzed using the Wilcoxon nonparametric test. ***Results:*** The median age of the study population was 47 years. The diagnostic performance of abbreviated protocols with three and four sequences and the full protocol was identical. The two-sequence abbreviated protocol showed higher specificity (84.6%), but a higher probability of false negatives (16.8%) and a lower sensitivity (83.2%) than the other protocols, which showed values of 81.3, 8.4, and 91.6%, respectively. The abbreviated protocol with three sequences showed an average underestimation of only 0.03 cm in the measurement of the longest axis of the residual lesion (p=0.008), but an average reduction in acquisition time of 75%. ***Conclusion:*** The three-sequence abbreviated MRI protocol showed diagnostic performance equivalent to the full protocol but with a 75% reduction in acquisition time.

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536 - ANALYTICAL CROSS-SECTIONAL STUDY TO ASSESS THE IMPACT OF THE COVID-19 PANDEMIC ON THE STAGING OF BREAST CANCER PATIENTS

Samira Juliana de Moraes Machado[1], Renato Cagnacci Neto[1], Marina Sonagli[1], Hirofumi Iyeyasu[1], Fabiana Baroni Alves Makdissi[1]

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Introduction: We are currently living in a state of pandemic by COVID-19, whose virus has high transmissibility and potential lethality. The World Health Organization recommended social isolation, and the Brazilian National Cancer Institute, following this guidance, proposed that the oncological treatment of low-to-moderate aggressive tumors be postponed, including breast cancer. In Brazil, the lockdown was a strategy to reduce the potential impact of the pandemic on health services; consequently, asymptomatic patients postponed their imaging tests this year. Considering this abrupt change in access to health care and in the routine of cancer screening, we theorize that the COVID-19 pandemic may have had a negative impact on diagnosis, treatment, and survival in breast cancer patients. ***Objective:*** The aim of this study was to analyze the staging at diagnosis of patients with breast cancer, before and during the pandemic, and to calculate if there was a statistical difference comparing the two groups studied. A secondary objective was to describe clinical and demographic characteristics. ***Methods:*** A single-center, cross-sectional analytical study with 1219 patients diagnosed with breast cancer (CID C50 or D05) treated at the Mastology Department of the AC Camargo Cancer Center from March 2019 to February 2021. The following epidemiological variables were evaluated: age at years at diagnosis, clinical staging at diagnosis (TNM 8th edition©), presence of comorbidities (risk group for severe COVID-19), family history of cancer, symptoms at diagnosis, and provenance. Descriptive variables and data analysis was performed using Pearson's χ^2 test or Fisher's exact test. ***Results:*** In this study, 1002 patients were included, divided into two groups: prepandemic (574) and pandemic (428). Both groups had similar demographic and clinical characteristics. There was an increase in the frequency of symptomatic patients in the pandemic period 199 (46.5%) versus nonpandemic period 213 (37.1%) (p=0.003). Anatomical and clinical staging were similar between the groups, with no statistically significant difference. When analyzing the anatomical staging, comparing the prepandemic versus pandemic groups, we observed a higher frequency of tumors: T1 [262 (45.6%) vs. 170 (39.8%), p=0.376]; N0 [398 (69.2%) vs. 288 (67.4%), p=0.194]; M0 [552 (96.0%) vs. 415 (97.2%), p=0.614]. Regarding clinical staging, early malignant tumors (EC Tis, Ia–IIIa) were more frequent, corresponding to 521 (90.8%) prepandemic versus 390 (91.1%) pandemic (p=0.766). ***Conclusion:*** There was no significant variation between the groups in terms of staging at diagnosis, but more patients with symptoms related to breast cancer sought cancer care.

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468 - ANALYSIS OF WOMEN WITH BREAST CANCER WHO UNDERWENT IMMEDIATE OR LATE BREAST RECONSTRUCTION

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Introduction: Breast reconstruction is a right guaranteed by the public health system for women who undergo mastectomy. However, there are factors that delay the performance of this procedure in the Unified Health System in Brazil. ***Objective:*** The aim of this study was to analyze the characteristics of immediate or late breast reconstruction in women with breast cancer in a reference hospital in the state of Pernambuco. ***Methods:*** This is an observational, retrospective, analytical study, with a descriptive approach of 400 cases of breast reconstruction from 2010 to 2020. The data were collected through a surgical care survey with breast cancer patients who underwent breast reconstruction. Then, they were analyzed using the SPSS software, version 18, with the percentage rates of the categories assessed by the χ^2 test, considering a 5% significance level. The comparison of the analysis was significant ($p<0.005$), showing that the described profile is the most frequent one in the group of assessed patients. ***Results:*** Most patients were aged between 46 and 59 years (45.3%), brown (61.1%), married (79.1%), who studied until high school (60.7%), homemakers (45%), nonsmokers (84.9%), and who do not drink alcohol (94.9%). According to the TNM system, 84% of the patients were in the early stages (0, I, and IIa), underwent immediate reconstruction after mastectomy or resection (70.3%); reconstructive surgeries had local flaps, both in the lower, upper, or medial-lateral pedicle; and implants were performed in 70% of the patients. According to the molecular subtype, Luminal A represented 60% of the patients, followed by Luminal B with 16%, triple negative with 15%, and HER-2 with 9%. ***Conclusion:*** The findings support that patients with higher schooling are prone to undergoing immediate breast reconstruction. Thus, the number of immediate breast reconstruction procedures in patients with breast cancer has increased significantly.

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509 - ASSOCIATION BETWEEN LEVONORGESTREL-RELEASING INTRAUTERINE SYSTEM AND BREAST CANCER

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Introduction: The association between the use of hormonal contraception and breast cancer has been debated in the medical community for years. Although older studies have suggested an increase in breast cancer risk with the use of combined oral contraceptive (COC) pills, more recent studies have demonstrated the relative safety of combined contraceptives composed of estrogen and progesterone. Isolated progestagens are usually prescribed to women who have menstrual cycle disturbances; however, literature on the association between the use of isolated progestagens and breast cancer is still controversial. The levonorgestrel intrauterine system (LNG-IUS) device is a long-duration, reversible contraceptive. It has become popular due to its high efficacy as a birth control method and other beneficial effects, such as control of abnormal uterine bleeding and endometrial protection. Nevertheless, its safety regarding breast cancer has is still questioned. Furthermore, it has been debated whether it would be a viable choice for birth control for breast cancer survivors, as well as a tool for endometrial protection among women who use tamoxifen, which leads to endometrial thickening, polyps, and even hyperplasia and endometrial cancer. ***Objective:*** This study aims to present a literary review of the main articles within the theme of the use of LNG-IUS and its safety for breast cancer survivors and in the general population. ***Methods:*** A literature review was conducted for articles with this theme, using an electronic library, with predetermined keywords. ***Results:*** In total, 25 articles were selected that fulfilled the inclusion criteria. Progesterone has a proliferative effect on the breast during the luteal phase of the menstrual cycle, in addition to inducing alveologenesis during puberty and ductal branching during pregnancy. This proliferative effect takes place through the expression of cyclin D1 on nPR-expressing cells. Moreover, it presents a paracrine effect on the adjacent cells that do not express hormone receptors, through the activation of membrane receptors that activate the nuclear factor kappa beta — the receptor activator of NF-κβ (RANK). Studies with animals showed that carcinogenesis was accelerated after the administration of progestagens, mediated by RANK ligands (RANKL). It is also known that levonorgestrel has an action on the 17-beta-hydroxysteroid dehydrogenase (17β-HSDs) enzymes on T47D epithelial breast carcinoma cells, increasing the bioactivity of estrogen on these cells. Comparing the use of LNG-IUS with the use of levonorgestrel orally, users of LNG-IUS have significantly lower levonorgestrel serum levels. Some populational studies have evaluated the association of LNG-IUS use and the risk of breast cancer, with discordant results. In some studies, for women who have used LNG-IUS, the risk was up to 73% higher. Regarding its safety for breast cancer survivors using tamoxifen, it has been shown that there is little or no difference in breast cancer recurrence with the use of LNG-IUS. However, other authors claim that there are not enough data to confirm the safety concerning breast cancer recurrence, and its use may lead to irregular bleeding and invasive procedures to assess the endometrial layer. ***Conclusion:*** In populational studies, the use of LNG-IUS increases breast cancer risk. In breast cancer survivors who use tamoxifen, LNG-IUS seems to protect the endometrium, but more studies are necessary to confirm its safety for breast cancer recurrence.

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547 - EVALUATION OF PATHOLOGIC COMPLETE RESPONSE, DISEASE-FREE SURVIVAL, AND GLOBAL SURVIVAL OF PATIENTS WITH BREAST CANCER, TRIPLE-NEGATIVE SUBTYPE, WHO UNDERWENT PLATINUM-BASED NEOADJUVANT CHEMOTHERAPY AT HOSPITAL DE CÂNCER DE PERNAMBUCO IN 2018–2021

Lucas Montarroyos Vasconcelos de Albuquerque[1], Tainan de Morais Bispo[1], Marcelo Ramos Tejo Salgado[1], Carolina de Souza Vasconcelos[1], Gabriela Calado Silva[1]

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Introduction: Neoadjuvant chemotherapy (NEO CT) plays an important role in the treatment of breast cancer. The main objective of this treatment was to provide better surgical results for patients who were initially considered unresectable or to enable the performance of conservative surgeries for operable patients who, due to tumor size, would be candidates for mastectomy. Besides, NEO therapy works as an in vivo sensitivity test for the applied therapy. Meta-analyses have assessed the role of pathologic complete response (pCR; ypT0/is ypN0) in relation to global survival (GS) and disease-free survival (DFS), with significantly favorable results. ***Objective:*** The aim of this study was to assess the pCR in patients with invasive breast cancer, triple-negative (TN) subtype, who underwent platinum-based NEO CT, in order to design a profile of these patients, besides assessing the DFS rate and GS rate. ***Method:*** For the description of the study population, the absolute and percentage frequency distribution was represented by mean and standard deviation when the variable presented normal distribution, and by median and interquartile interval. The applied normality test was Kolmogorov-Smirnov. The Kaplan-Meyer graph was used to analyze GS and DFS, in order to describe the survival curves. In the comparison of survival curves, according to the condition of pCR, the log-rank test was used. The analysis was conducted using the STATA software version 14.0. ***Results:*** The study was composed of 112 female patients with TN breast cancer who underwent platinum-based NEO CT, with mean age of 44.5 years; 56.2% were aged between 40 and 59 years. Most patients (96.4%) had invasive carcinoma of no special type; 54.5% at histological grade III. As for clinical staging, 33.9% were IIB, whereas 25.0% and 27.7% were IIIA and IIIB, respectively. In all, 92.0% of the patients underwent mastectomy. Almost all patients underwent radiotherapy after surgery (111/112). Only two patients presented with disease progression during CT; 57.1% had pCR; and 44.1% had partial response after NEO CT. Among women with complete response, DFS was 100% in 12 months, and 88.9% in 24 months, whereas for those who did not present pCR, the probability of DFS was 91.30% in 12 months and 78.02% in 24 months. Due to the small number of patients, we could not correlate the pCR rate with DFS and GS. ***Conclusion:*** In line with the European meta-analysis published in 2018 (ESMO), our study showed high rates of pCR after platinum-based NEO CT in patients with TN breast cancer. Contrary to data from other studies, this research could not associate pCR with improved DFS and GS.

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474 - AXILLARY ACCESSORY BREAST SARCOMA IN A YOUNG PATIENT

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The accessory breast tissue in the axillary region is rare, but as there is breast tissue, there is the possibility of pathological degeneration. With an even greater rarity, breast sarcoma is a diverse group of malignancies derived from mesenchymal tissues. The aim of this report was to describe a case of a young patient with sarcomatous neoplasia in the axillary accessory breast topography. Patient LPMS, 19 years old, female, admitted to the mastology service of the Hospital das Clínicas of the Universidade de São Paulo with a nodule realized in the left axillary region with progressive growth during pregnancy. The patient was healthy with a family history of a maternal aunt with breast cancer at 50 years old. At the clinical examination, she had an extensive tumor affecting the left axillary region measuring 10 cm with clinically negative axilla. Contralateral breast and axilla and supra-/infraclavicular fossas without abnormalities. In the initial mammogram, a hyperdense, oval, and indistinct nodule was found in the left axillary extension, measuring 10.8 cm. In breast magnetic resonance imaging, a heterogeneous mass in the left axillary extension is observed with irregular, lobulated margins, measuring 10.3×10×10.1 cm, heterogeneously and concentric by the contrast. Core biopsy was performed with the result of spindle cell mesenchymal neoplasm. In the systemic staging examinations, there was no evidence of a lesion suspected of distant metastasis. Vincristine 1.5 mg/m^2 + Actinomycin D 0.45 mg/kg/day + Cyclophosphamide were prescribed to the patient. After six cycles with no clinical response, it was decided to switch the neoadjuvant chemotherapy to doxorubicin 25 mg/m^2 and Ifosfamide 3,000 mg/m^2. After three cycles, the patient remains without a clinical response to neoadjuvant chemotherapy. It was decided to refer the patient to radiotherapy for axillary irradiation on the right, with a subsequent surgical approach. The patient underwent surgery with wide resection of the tumor and axillary lymph nodes. The anatomopathological examination showed sarcoma with immunohistochemistry suggestive of rhabdomyosarcoma measuring 19.3×14.8×14.7 mm with free margins and with sarcoma metastasis in one of the 21 dissected lymph nodes. The patient progresses well postoperatively. Accessory breast tissue has a very rare incidence in the population, with incidence rates of 1–2%. With regard to breast sarcoma, it is a very rare condition. It consists of a heterogeneous group of nonepithelial tumors originating from the mesenchymal tissues of the breast. They account for <1% of all breast malignancies and <5% of all sarcomas. Due to its rarity, current knowledge about breast sarcoma is limited and is mainly based on small retrospectives, case series, or case reports. Angiosarcoma, including secondary angiosarcoma from before breast radiation, is the most frequent type of breast sarcoma. As with other soft-tissue sarcomas, the primary breast sarcoma is associated with genetic conditions such as Li-Fraumeni syndrome, familial adenomatous polyposis, and type 1 neurofibromatosis. Therefore, breast sarcoma treatment generally follows the algorithms derived from trials of soft-tissue sarcomas in the chest wall, as has been done with the reported patient. Surgical treatment is the standard and most accepted treatment for breast sarcoma. The role of chemotherapy for breast sarcoma is also uncertain. There are no prospective studies that specifically assess the benefit of chemotherapy in adjuvant or neoadjuvant settings. Likewise, the benefit of radiotherapy in breast sarcoma is also very doubtful with evidence of benefit in large tumors and with positive margins after surgical resection.

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2 - AXILLARY SCHWANNOMA MIMETIZING LOCALLY ADVANCED BREAST CANCER: A CASE REPORT

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Schwannomas are benign, rare tumors that arise from the myelin sheath or peripheral nerves. Usually, they occur in the adult age, being uncommon in children. They may distort the nervous path and, when adjacent to bones, can lead to fractures. The incidence of this kind of tumor in the axilla is approximately 5%, and in the breasts, it is 2.6%. Fragment biopsies can elucidate the diagnosis, but the patient might present intense pain during the procedure. Macroscopically, Schwannomas have a fibroelastic consistency and a fibrous capsule. Microscopically, the spindled Schwann cells are seen, and hypercellular areas (Antoni A) are alternated with hypocellular areas (Antoni B), all of which show a positive reaction to the S100 protein during immunohistochemical staining. Small and asymptomatic Schwannomas do not require any kind of treatment, and a follow-up of every 6 months with ultrasound examinations is a viable option. For symptomatic cases, the treatment is lumpectomy, with extra care to preserve the adjacent nerve whenever that is possible. This surgery allows satisfactory results, with low rates of malignization and relapse. This article aims to report the case of a 37-year-old woman who presented with a palpable lump in the right axilla, diagnosed as a Schwannoma. Its importance comes from the rarity of the tumor and its resemblance to locally advanced breast cancer. MML, female, 37 years old, Caucasian, single, was referred to the mastology service of a Medical Practice localized in the south of São Paulo, after presenting with a palpable, nonpainful lump in the right axilla, with progressive and accelerated growth. An ultrasound examination showed a solid-cystic, hypoechogenic nodule, with regular margins, that measured up to 6.4 cm. After core biopsy, the histology of the lump was described as a proliferation of spindle-like cells, and the immunohistochemical staining showed a positive reaction to the S100 protein, which confirmed the diagnosis of Schwannoma. The patient underwent a lumpectomy and presented with hypoesthesia and loss of strength in the upper right limb, which had spontaneous resolution after 2 weeks of follow-up.

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537 - SYNCHRONOUS BILATERAL CARCINOMA IN SITU: A CASE REPORT

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Synchronous bilateral breast carcinoma (SBBC) is defined as the simultaneous presence of two primary tumors at diagnosis, one in each breast. It is also considered synchronous when the ipsilateral cancer is diagnosed within 12 months of the first diagnosis. No consensus has been reached on the origin of SBBC, as it can be interpreted as either a metastasis or a new primary tumor, and its prognosis is controversial. As this tumor is rare and requires further investigation, this study aims to report the case of a patient with SBBC with different biological characteristics. A woman, 63 years old, white, was referred to a private clinic in Rio de Janeiro, in June 2021 because her mammography was classified as BI-RADS IV. Menarche at 13 years, gravida 1 para 1. Menopause: 48 years, oral hormone therapy for 5 years. She has two maternal cousins with breast cancer who were diagnosed after the age of 50 years. She receives treatment for depression and denies other diseases. Physical examination: small breasts, no swelling or retraction. Palpation: left breast (LB) was more diffusely dense in the junction of outer quadrants. Negative papillary expression was found on both sides and axillae without suspicious lymph nodes. Mammography — June 2021: LB with amorphous calcifications with a 20 mm length in the 1/3 depth of the left lower quadrant (category IV). Right breast (RB): benign calcifications (category II). Breast ultrasound (June 2021): Category I. LB mammotomy: ductal carcinoma in situ (DCIS). Immunohistochemistry: estrogen receptor positive, progesterone receptor negative, and positive CREB-B2. She underwent stereotactic excision of the LB lesion and sentinel lymph node biopsy. Result: Negative sentinel lymph node, ductal carcinoma "in situ" with comedo, cribriform, micropapillary, and solid patterns; nuclear grade 3; presence of necrosis; and lobular cancerization. Positive superior, inferior, and anterior surgical margins were observed. Extent of margin involvement: moderate. Pathological staging: pT1mi pN0. Given the positive margins in the small volume breast and the extensive intraductal component, the treatment given to the patient was bilateral skin and nipple-sparing mastectomy with prosthesis implantation. Histopathological results of the skin and nipple-sparing mastectomy were as follows: LB: (micro)invasive breast carcinoma of no special type, with four foci of microinvasion. Presence of ductal carcinoma in situ with comedocarcinoma, cribriform, micropapillary, and solid architectural patterns; nuclear grade 3. Surgical margins were free of neoplasia. Nipple-areola complex with a focus on ductal carcinoma in situ, solid pattern, and intermediate-grade lobular cancerization were observed. The surgical margin was free of neoplasia. Pathological classification (AJCC/8aed): pT1mi (m) pN0. RB: ductal carcinoma in situ, cribriform architectural pattern, and nuclear grade 1; absence of necrosis and microcalcifications; and good cosmetic surgical result. Although SBBC is rare (ranges from 0.3% to 12% of breast cancer cases), it must always be remembered and investigated in screening tests and physical examinations, especially in patients at high risk of developing breast cancer, in order to contribute to timely diagnosis and treatment and to improve the woman's prognosis. In this case, the findings of carcinoma in situ of the LB associated with comedonecrosis, high nuclear grade, HER2 positive, and microinvasions justify the warning for investigating lesions in the contralateral breast. The surgical choice may vary according to the optimal referral for the treatment of each lesion — mastectomy is not mandatory — providing similar survival.

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45 - BREAST ANGIOSSARCOMA IN A MALE PATIENT: A CASE REPORT

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Primary sarcomas of the breast originate from connective tissue and are responsible for less than 1% of all breast malignancies with an incidence of 5 cases per million in the United States. Primary breast angiosarcoma originates in the parenchyma and can secondarily compromise the skin and pectoral muscles in advanced cases. Sarcoma is present more in women between the ages of 14 and 82, mainly in the third and fourth decades of life. At diagnosis, as in other sarcomas, the size is bigger than 5 cm, with a direct correlation with prognosis; because of few data in literature due to its incidence and frequent error and the inespecific clinical and radiological signs, we report a case of breast angiosarcoma in a male patient from the Hospital Santo Antônio/Obras Sociais Irmã Dulce, Salvador, BA. It is the case of a 42-year-old man with a nodule in the upper medial quadrant of the right breast, measuring 2 cm. The mammogram and ultrasound showed a 1.4-cm regular nodule in the upper medial quadrant, BI-RADS 4. The patient underwent a core biopsy with a pathology reporting a chronic inflammatory process and a nonmalignant neoplasia; immunohistochemical positive for CD 68 and LCA and negative for cytokeratin 34beta12, P63, and cytokeratin AE1/AE3. Then, the nodule was excised and the pathology result showed a fusiform cell neoplasia with a positive posterior margin confirmed by immunohistochemical that neoplastic cells were positive for CD34 and CD31, negative for cytokeratin AE1/AE3, and inconclusive to smooth muscle actin with KI-67 <10%, leading to the diagnosis of angiosarcoma. After that, the margins re-excision the pathological staging (American Joint Committee on Cancer) ypT0. No evidence was found for metastases in other sites. The patient is now waiting for radiotherapy for local control benefits. There were 16 fractions in the right breast and a multidisciplinary follow-up. The discussion showed a rare case in the literature in agreement with the 170 cases reported, with a great impact when seen in men since the case reported prevalence in women. In relation to diagnosis, it becomes a challenge, especially in low-grade malignant tumors with multiple tissue pieces and needed the best pathology analysis, which could delay treatment. The inespecific alterations in imaging examinations as well as at tests, such as the presence of fatty tissue in a mammogram, would include hemangiomas and angiolipomas as differential diagnosis contributing to delay in the diagnosis. As treating large tumor resection due to aggressive behavior is recommended, it is a therapeutic option if associated with radiotherapy reducing risk by 20–50%. That was the treatment adopted for the patient described above. This study, besides contributing to the literature on angiosarcoma incidence, also affects the possible presentation in male patients, elevating the diagnostic hypothesis of nodule in the cases of early adequate treatment.

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526 - BREAST CANCER BARRIERS IN A LOW AND MIDDLE INCOME COUNTRY: EVALUATION OF FACTORS ASSOCIATED WITH EARLY DIAGNOSIS AND BEGINNING OF TREATMENT

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Objective: The aim of this study was to assess the difficulties faced by patients with breast cancer in accessing health services from the detection of the first symptoms to the start of treatment. ***Methods:*** A cross-sectional study was conducted between January and December 2020. A structured questionnaire with the inclusion of socioeconomic variables was applied. We sought to understand the possible difficulties faced by patients to gain access to health services, as well as the characteristics of the disease and initial symptoms presented until the beginning of the treatment. ***Results:*** In total, 102 women were diagnosed with breast cancer and aged between 25 and 80. In all, 54.9% and 95.1%, respectively, lived in a large city and within 13 km of the health service. Nodule perception was the first symptom in 81 patients (80.4%). After symptom perception, the first consultation was carried out by a general practitioner in 65.7% of the cases, who performed a clinical examination of the breasts and requested a mammogram in 63.7% and 80.4% of the cases, respectively. Considering the mammogram, 50% of patients had never undergone the examination. Regarding the difficulties faced in scheduling the first appointment, fear of diagnosis (83.3%) and negative experiences (31.4%) were the most mentioned. For the difficulties with having a mammogram, the fear of diagnosis (81.4%) and the limitations of transportation/distance (42.2%) stood out. Of the difficulties in scheduling the biopsy, the fear of diagnosis (85.3%) followed by transport/distance (51.0%) were the most frequent reports. At diagnosis, 46.1% of patients were in stages III and IV. ***Conclusion:*** The fear of a cancer diagnosis and negative experiences with health services were the difficulties most described by the participants after the occurrence of breast symptoms until the first consultation. Other factors, such as limited transportation and distance to health centers, made it difficult to perform mammography and breast biopsy. Together, the data from this study reinforce the need for comprehensive care for patients with suspected breast cancer.

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499 - BREAST IMPLANT-ASSOCIATED ANAPLASTIC LARGE CELL LYMPHOMA: A LITERATURE REVIEW

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Objective: This review aims to bring updates about the relationship between the silicone implant and the breast implant-associated anaplastic large cell lymphoma (BIA-LCL), in order to have a better knowledge about this disease. Despite the low risk of its development, a better understanding of BIA-ALCL is of interest to women, oncologists, breast specialists, plastic surgeons, regulatory agencies, and the general public, as the number of women with breast implants is increasing worldwide. ***Methods:*** This article is based on a review of publications on the topic. A search for articles was carried out through the SciELO databases, at the interface of the U.S. National Library of Medicine and National Center for Biotechnology Information (PubMed) and Latin American and Caribbean Literature on Health Sciences (LILACS). ***Results:*** BIA-ALCL is a very rare disease (1 case per 1–3 million women with implants), accounting for 2–3% of these lymphomas in adults and 0.5% of breast cancers and occurs between 8 and 10 years after breast cancer and implantation of a breast prosthesis. Textured implants are the most associated because they have a greater contact surface, so more biofilm is formed, causing bacterial adhesion. Most patients have peri-implant effusion and less often have a mass. Other described symptoms included breast enlargement, skin rash, capsular contracture, and lymphadenopathy. Lymphoma may be located in the seroma cavity or may involve pericapsular fibrous tissue. To make the diagnosis, imaging tests and cytological analysis must be performed. The fluid must be aspirated and is usually cloudy and thick, with large pleomorphic epithelioid lymphocytes, abundant cytoplasm, eccentric reniform nucleus and prominent nucleolus, and anaplastic lymphoma (ALK). Morphological and immunophenotypic features are indistinguishable from those of ALK-negative ALCL. ***Conclusion:*** The treatment of BIA-LCL includes implant removal, complete capsulectomy, excision of suspected adenopathy, and excision of lymphoma margins. Surgeons may consider removal of the contralateral implant as approximately 4.6% of cases have demonstrated incidental lymphoma in the contralateral breast. There are no data to recommend a mastectomy, sentinel lymph node biopsy, axillary lymphadenectomy, or breast reconstruction. The best prognosis is with complete capsule elimination surgery. Follow-up is done every 3–6 months for 2 years, in addition to imaging tests and the segment will depend on the patient's clinical manifestations.

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538 - BREAST LIPOSARCOMA

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Breast sarcomas are a heterogenous group of malignancies that originate from the breast support stroma. They represent less than 0.1% of all breast neoplasms and less than 5% of all sarcomas. They are more frequent in women and between the fourth and sixth decades. Previous breast cancer treatment and radiotherapy are the main risk factors. The usual clinical presentation is a breast mass, which grows progressively and can reach a large size. They rarely attach themselves to the thorax or infiltrate the skin. Skin changes, when occur, are usually secondary to a large distitute. The tumor is usually well or partially defined, with a firm consistency. Lymph nodes are palpable in up to 25% of cases but tend to be reactional. Imaging findings are nonspecific. For histopathological diagnosis, it is necessary to exclude metaplastic carcinoma, and immunohistochemistry is useful to detect evidence of epithelial origin. Treatment requires resection with wide margins, and mastectomy may be necessary. Hematogenous dissemination occurs, and lymph node interventions should only be performed in the presence of a proven histopathological impairment. There is a trend of improvement in survival with radiotherapy after conservative surgery. After mastectomy, radiotherapy may be beneficial in cases of increased risk of local recurrence (lesions larger than 50 mm, unsuitable margins, and higher grade variants). The role of chemotherapy remains controversial. Liposarcoma, a histological subtype of sarcoma, despite being the second most frequent subtype in soft tissues, rarely occurs in the breast. Liposarcoma encompasses a spectrum, from lesions with essentially benign behavior to frankly malign lesions. Liposarcomas classified as myxoid, pleomorphic, and dedifferentiated have a higher risk of recurrence and metastases. The main differential diagnoses of breast liposarcoma include other breast tumors with lipomatous or liposarcomatous components, fat necrosis, and metaplastic carcinoma. CSSP, 48 years old, female, attended the Mastology Service of the Central Hospital of the Army, referring a breast nodule for 2 months with growth in the period. On clinical examination, a well-defined, mobile oval nodule with firm consistency was observed, measuring 40 mm, with no associated findings. At mammography and ultrasonography, the nodule was oval and circumscribed. Magnetic resonance imaging showed heterogeneous enhancement and a type II curve. A simple mastectomy was performed due to the poor tumor-breast relationship, with a histopathological result of dedifferentiated liposarcoma with areas of myxoid pattern, measuring 40 mm, and free histopathological margins. Adjuvant radiotherapy was indicated due to the diagnosis of dedifferentiated liposarcoma with areas of myxoid pattern.

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527 - BREAST ULTRASONOGRAPHY IN THE MEASUREMENT OF RESIDUAL TUMOR AFTER NEOADJUVANT CHEMOTHERAPY

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Introduction: The role of primary chemotherapy in breast cancer is well established and has positively impacted the number of conservative surgeries. However, for effective locoregional control, it is necessary for complete resection of the residual tumor, with histopathological free margins. Preoperative evaluation of the residual tumor is essential. A clinical examination is impaired due to tissue alterations induced by chemotherapy, and the use of imaging methods had conflicting results. ***Objective:*** The aim of this study was to evaluate the agreement between the ultrasound measurement and the histopathological measurement of the residual tumor in breast cancer patients undergoing neoadjuvant chemotherapy. ***Methods:*** A cross-sectional study was conducted comparing the average and other measures of dispersion of the echographic and histopathological measurements of the residual tumor. Additionally, we compared the average and other measures of dispersion of the individual differences between the echographic and histopathological measurements of the residual tumor. The scenario was a quaternary hospital in Rio de Janeiro where breast cancer patients were treated. ***Results:*** The average ultrasound measurement was 18 mm (95%CI 13.75–22.25), with a median of 16. The average histopathological measurement was 16 mm (95%CI 11.62–20.38), with a median of 12. The average of the individual differences between the echographic and histopathological measurements of the residual tumor was 2 mm (95%CI 0.38–4.38), with a median of 2 mm. ***Conclusion:*** Ultrasonography is an effective tool in the preoperative evaluation of breast cancer patients undergoing primary chemotherapy.

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528 - A CASE REPORT: BREAST MYIASIS — AN UNCOMMON DISEASE

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Myiasis is a dermatosis resulting from flies' larvae infestation in animal and human tissues. More prevalent in subtropical and tropical countries, it is related to lower social and economic levels. The fly species that can cause this pathology are *Cordylobia anthropophaga*, *Cochliomyia hominivorax*, and *Dermatobia hominis*. The infestation happens after eggs are deposited in a disrupted tissue or by an orifice caused by a fly sting and attacks cutaneous and mucous membranes in many body regions, including the breast. There is no person-to-person transmission. The larvae feed on the injured tissue, leading to pain and tissue destruction. The abscesses, tuberculosis, and inflammatory sebaceous cysts are clinical conditions to be ruled out in differential diagnosis. An abscess is the most common inflammatory breast condition, presenting with pain, erythema, and local heating. A cold abscess may lead to the suspicion of mycobacteria infection, mostly in lactating women. Otherwise, sebaceous cysts when inflamed may look like an abscess, but will not have fluctuation signs, and an ultrasound (US) image will help the diagnosis. The diagnosis is clinical and done by observing moving larvae or by US showing a well-defined lesion, with high echogenicity, and the presence of larvae. The best treatment option is manual larvae extraction, associated or not with paste vaseline or mineral oil covering the affected area, which causes larvae immobilization and asphyxia. The ideal treatment is to remove the larvae intact, because maceration leads to the release of irritating substances into the surrounding tissue. Surgery is not a good option. It is useful to prescribe an antibiotic regimen to treat or prevent infections. This case report allows the conclusion that myiasis is an uncommon breast pathology and sometimes may be ignored in the clinical setting. For this reason, its presence must always be taken into consideration in the differential diagnosis of breast diseases in certain groups of patients coming from at-risk areas. A 56-year-old white female, obese, with low social and economic conditions, came to a public health outpatient clinic complaining of increasing volume, hardening, and skin alterations in the right breast (hyperemia and skin thickening) in the past 10 years. No investigation was done during this long period, but the symptoms worsened in the past 6 months and severe pain was reported by the patient. She was referred to a specialized center and a bilateral mammogram revealed an extensive asymmetry in the upper outer quadrant of the right breast with architectural distortion associated with uncountable atypical calcifications and diffuse dermal thickening, classified as BIRADS 5. Physical examination revealed the presence of bilateral, enlarged, suspected axillary lymph nodes. The patient underwent breast core biopsy that resulted in invasive breast cancer of nonspecial histologic type, Nottingham grade 3, molecular type luminal B (RE 20%, RP 30%, negative HER-2, and KI-67 60%/cells). After being staged with radiologic examinations, she was found with multiple bone metastases in the thoracic and lumbar bodies, as well as a lytic lesion in the left iliac wing. She started treatment with the oncology team using hormone therapy plus Zoledronic Acid plus chemotherapy. One month after beginning therapy, she went to an emergency unit presenting cavitations and dimpling in the right breast, associated with bullous lesions, necrosis, and bad smell. Physical examination demonstrated live moving larvae over the necrotic tissue, confirming the diagnosis of breast myiasis associated with a stage IV breast carcinoma.

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8 - CASTLEMAN DISEASE IN A PATIENT WITH AXILLARY LYMPH NODE ENLARGEMENT

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Castleman disease represents a group of polyclonal lymphoproliferative entities. Based on clinicopathological associations, the disease can now be clinically divided into two subtypes: unicentric disease and multicentric disease. The multicentric Castleman disease (MCD) involves multiple lymph nodes from different anatomical sites and represents the other 25% of cases, occurring in 5 out of 1 million patients. MCD is multifactorial and can be subdivided according to its clinical association. It is known that interleukin 6 (IL6) plays an important role in the constitution of iMCD symptoms. The cause of the increase in IL6 is unknown. MCD is commonly associated with constitutional symptoms such as night sweats, weight loss, ascites, and pleural effusion. The treatment for MCD is based on the use of IL6 inhibitors. Consideration should be given to the severity of symptoms present to determine the intensity of targeted therapy. Cytotoxic chemotherapy may be a possibility in cases of the disease with severe organ dysfunction. Data from a systematic review published in 2012 of 404 cases of surgery in DC and demonstrated that there was no long-term benefit if patients in the MCD group underwent resective surgery. New prospective research data are needed to further assess the role of surgery in MCD. A female patient, 25 years old, born in Várzea Paulista, SP, came to the mastology outpatient clinic of the University Hospital of Jundiaí in May 2021 with a complaint of the appearance of a hardened nodule in the left breast for 9 months, with progressive increase, pain on palpation, daily afternoon fever, and weight loss of 6 kg in 2 months. A breast ultrasound showed lymph node enlargement in the left infraclavicular region. Physical examination showed good general condition, conscious, oriented, left axilla with the presence of hardened, enlarged, and mobile lymph nodes of approximately 8 cm. She was tested for HIV, syphilis, and hepatitis B and C negative. B2 microglobulin: 2.4. Core biopsy and immunohistochemistry (IHC) were performed on lymph node enlargement, and the result was inconclusive. Computed tomography of the thorax and abdomen: supraclavicular and infraclavicular and axillary lymph node enlargement on the left, measuring the largest 5.7×2.5 cm and 5.9×4.4 cm, some compressing the subclavian vein on the left; paraortic and prevascular mediastinal lymph node enlargement; and presence of inguinal adenomegaly. The patient was undergoing an excisional biopsy in October 2021, whose IHC showed histological aspects of atypical proliferation of epithelioid cells in the context of chronic lymphadenopathy with regression of germinal centers. Fungal research and BAAR were negative. Such lymphoid features are similar to those identified in Castleman disease, hyaline-vascular form. The association of histopathology data, IHC, clinical picture, and the exclusion of other differential diagnoses allowed us to obtain the diagnosis of iMCD. Because of its primordial manifestation in the left armpit, it was essential to differentiate between lymphoma and occult breast carcinoma, since these are more common diagnoses in clinical practice and have a similar initial clinical picture.

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555 - CLINICAL AND HISTOPATHOLOGICAL PROFILE OF BREAST CANCER AMONG YOUNG WOMEN IN A REFERENCE HOSPITAL IN PARAÍBA

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Introduction: Breast cancer is the most common malignant neoplasm in the world and is the leading cause of cancer mortality in women. It is relatively uncommon in young women under 40 years old, but they have more aggressive tumors with high mortality rates. ***Objectives:*** The aim of this study was to analyze the clinical and histopathological profiles of young women affected by breast cancer in a reference hospital in Paraíba. ***Methods:*** This is an observational, cross-sectional, and retrospective study to identify clinical data, tumor characteristics, and therapeutic modalities used. The data were collected in a reference hospital in Paraíba. The sample was nonprobabilistic by convenience of women in the follow-up of the disease during September 2020 and February 2021. Interviews were conducted with patients who met the inclusion and exclusion criteria, as well as a review of medical records in order to complement the information provided by patients. The project was approved by the Research Ethics Committee of the Centro de Ciências Médicas of the Universidade Federal da Paraíba. ***Results:*** Of the 76 patients, 2 had bilateral tumors, totaling 78 tumors. The mean time between diagnosis and biopsy was 60.23 days, the fastest time being 1 day and the longest being 450 days. Regarding histological type, invasive ductal carcinoma was found in 66 (84.2%) tumors, followed by carcinoma in situ in 6 (7.69%) cases, and invasive lobular in 1 (1.28%). The remaining five tumors were of five other different histological types. In all, 74 tumors were evaluated for staging, 6 (8.11%) tumors were Tis, 13 (17.57%) T1 tumors, 30 (40.54%) T2 tumors, 12 (16.22%) T3 tumors, and 13 (17.56%) T4 tumors. There was information on only 69 tumors regarding lymph node involvement; of these, 34 (49.28%) were N0, 19 (27.53%) were N1; and 16 (23.19%) were N2. In only 44 cases, it was possible to evaluate distant metastasis, with 38 (86.36%) without metastasis and 6 (13.64%) with metastasis. The histological grade of 70 tumors was evaluated, and only 1 (1.43%) had histological grade I, 34 (48.57%) with grade II, and 35 (50%) with grade III; and regarding the nuclear grade in 73 tumors, 29 (39.73%) tumors classified as nuclear grade 2 and 44 (60.27%) as grade 3. Of 72 tumors analyzed, 14% were triple negative; nevertheless, more than 60% of tumors expressed estrogen and progesterone receptor. The cell proliferation index from the Ki-67 antigen was evaluated in 73 tumors, with 14 (19.18%) tumors equal or less than 10%, 11 (15.07%) tumors between 15% and 25%, and 48 (65.75%) equal or above 30%. Vascular invasion was present in 20 (29.41%) of the 68 tumors evaluated, and perineural invasion was present in 20 (31.75%) of the 63 tumors analyzed. Of the 76 patients, only 6 did not undergo chemotherapy and 5 had missing information; 23 (35.38%) patients with adjuvant and 42 (64.62%) with neoadjuvant. The mean time of treatment was 6 months and 5 days, the minimum time was 4 months, and the maximum was 11 months. Radiotherapy was performed in 50 (89.29%) of the 56 patients evaluated, 90% adjuvant; 73% (19) of HER2-positive patients used trastuzumab; and 95% of patients underwent surgery, being radical mastectomy with axillary lymphadenectomy the most prevalent, performed in more than 50% of women. ***Conclusion:*** Invasive ductal carcinoma was identified as the most common subtype, 74.32% of diagnosed women had tumors larger than 2 cm, and 50.72% had lymph node involvement in the homolateral axilla. High histological and nuclear grades and high cell proliferation index were observed in immunohistochemistry. Regarding the therapeutic modalities, surgery and chemotherapy had a fundamental role in most cases, as well as radiotherapy. Targeted therapy and hormone therapy had a limited participation.

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81 - COMPLICATIONS FOLLOWING 1001 NIPPLE-SPARING MASTECTOMIES: A BRAZILIAN COHORT

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Introduction: Nipple-sparing mastectomy (NSM) is a conservative mastectomy approach for breast cancer with oncological safety and good aesthetic satisfaction; however, many surgeons still have concerns about complication rates, especially nipple-areolar complex (NAC) necrosis. ***Objective:*** The aim of this study was to analyze the complication rates of 1001 NSM performed in a Brazilian cohort. ***Methods:*** Between January 2004 and August 2020, we evaluated 534 patients who underwent 1001 NSMs. All patients were operated by the same surgeon; the data were retrospectively evaluated by the medical chart and the patient's follow-up was updated during the appointments. ***Results:*** The majority of indications for NSM were for breast cancer treatment (78%), followed by bilateral risk-reducing mastectomy (BRRM) (18.7%) and contralateral prophylactic mastectomy (3.3%). In total, 416 patients underwent therapeutic NSM, 85.3% for primary tumor treatment, 9.2% presented recurrence of a previous breast cancer, and 5.5% had compromised margins after previous breast-conserving surgery (BCS). Bilateral NSM was performed in 367 (88.2%) patients and unilateral surgery in 49 (11.8%) patients. Among the 100 patients who underwent BRRM, 27% had a previous breast cancer and 55% presented a genetic mutation in highly penetrant genes. Breast reconstruction was performed using silicon prosthetic implants for 91.8%, tissue expander for only 6.8% of patients, and for 1.4% of patients we do not have the data. In the 1001 NSM performed, we observed 4.4% of overall complications, including 1.1% of hematoma needing operation, 1.5% of infection, 1% of partial, and 0.2% of total nipple necrosis. Patients with previous breast cancer treated with BCS and radiotherapy had higher complication rates (21%) than in patients with no previous breast cancer treatment (6.4%), and patients >50 years old presented twofold more chance of having postoperative complications than patients <50 years old. ***Conclusion:*** We observed an overall postoperative complication rate of 4.4% and low nipple necrosis in 1001 NSM performed by the same surgeon. Older age and previous breast cancer history might be risk factors for increased complication rates following this procedure.

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490 - CONCERNING A FAMILY WITH BRCA2 MUTATION

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Introduction: Breast cancer is the most common malignancy in women and represents a major obstacle to public health worldwide. The molecular diagnosis of this type of cancer is one of the main contemporary challenges in oncology, since it is hampered by a complex inheritance pattern, characterized by both genetic and environmental factors. Only a minority of breast cancers are explained by the presence of high penetrance gene mutations, such as those in the *BRCA1* and *BRCA2* genes, which together with mutations in intermediate penetrance genes explain only up to 25% of the risk. In fact, much of the genetic influence is elucidated by low penetrance variants. Mutations in the germline BRCA1 and BRCA2 are the most common alterations in cases of early onset or of family history of breast cancer. It is also important to acknowledge that BRCA2 mutations can increase the risk of developing other cancers. Some studies show a relation between BRCA2 mutations and the development of leukemia, especially acute myeloid leukemia (AML). Also, some of these mutations, when inherited from both parents, cause a rare form of Fanconi anemia, a syndrome associated with the development of AML. In addition, there are studies evaluating a higher risk of pancreatic and esophageal cancer in carriers of BRCA2 mutations. The risk of colorectal cancer is also increased in patients with BRCA1 mutations. However, there are also some authors who defend that BRCA2 mutations could also be related. The specific statistics are not well defined because of the lack of data focusing on the relationship with the aforecited types of cancers, demonstrating the need for further analysis. This study aims to report the case of a woman with breast cancer at an early age. Such malignancy is associated and was somehow induced by the rich family history, represented by the high prevalence of cancer in the ancestry. We report a 34-year-old woman with an extensive history of carcinoma in the family, who was diagnosed with breast cancer in July 2016. In order to confirm the diagnosis, it was required an ultrasound, which resulted in a 2.2×1.5 cm node on the right breast's left superior quadrant, classified as BIRADS 4A. It also performed an ultrasound-guided biopsy that showed a tubular carcinoma on the right breast with the following characteristics: positive for estrogen and progesterone receptor, positive for KI 67 (5%), and negative for HER2, with staging of T1cN0M0. During anamnesis, the patient mentioned menarche at 12 years old, history of birth control pills use for 10 years, no pregnancy, and no breastfeeding. When it comes to family history, a great number of relatives were previously diagnosed with some type of cancer. Her paternal grandfather had rectum cancer at 42 years old and breast cancer at 62 years old. The paternal grandmother passed away because of a fast-progression leukemia at the age of 68. It is important to mention that her progenitors were first cousins. Furthermore, the patient's dad was diagnosed with breast cancer at 62 years, alongside his three brothers who were also diagnosed with cancer: one with prostatic cancer at the age of 64 years and the other two with intestinal cancer at the ages of 64 and 68 years old. Considering such a family history, a genetic panel was performed, analyzing the genes related to hereditary cancer risk, and it identified mutations in the patient's *BRCA2* gene. Then, firstly, she performed a bilateral mastectomy in January 2017 with sentinel lymph node investigation, which was negative for neoplastic cells in the lymph nodes. Later, considering the BRCA2 mutation, in August 2017, the patient had to undergo prophylactic surgery: oophorectomy with salpingectomy.

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1 - DERMATOFIBROSARCOMA OF THE BREAST: A CASE REPORT

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Dermatofibrosarcoma (DFS) is a rare low-grade fibroblastic mesenchymal tumor derived from the dermis. The lesion accounts for approximately 1% of all soft-tissue sarcomas and less than 0.1% of all malignancies, with an annual incidence of 4.2–4.5 cases per million. It occurs most frequently between the second and fifth decades of life and usually appears in the dermis and subcutaneous tissue. DFS occurs more commonly in the trunk (42%–72%), and breast involvement is uncommon and occurs due to the infiltration of previous dermal involvement. We report a case of a 40-year-old female patient with a history of a violaceous nodulation that was hardened and not adhered to deep planes measuring approximately 5 cm in the inferomedial quadrant of the left breast, whose biopsy was performed in an external unit revealing a DFS. Magnetic resonance imaging of the breast showed a nodule with thickening of the adjacent skin in the aforementioned topography, measuring 3.1×3×2.9 cm, in addition to another nodular image with similar characteristics, compatible with multifocal involvement. She underwent quadrantectomy and immediate reconstruction with a myocutaneous flap of the fat-grafted latissimus dorsi muscle. A surgical specimen containing two nodules, measuring 2.8 and 2.5 cm, respectively, with a result compatible with a DFS with free surgical margins was analyzed. Immunohistochemistry revealed native estrogen and progesterone receptors, positive CD34 in tumor cells, and positive Ki67 in less than 5% of cells. The patient remains under clinical follow-up at our service, with no evidence of recurrence of the lesion, currently with annual consultations for physical examination and checking of breast ultrasound and bilateral mammography examinations.

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534 - DERMATOMYOSITIS AS PARANEOPLASTIC SYNDROME OF A BREAST CANCER

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Paraneoplastic syndromes (PS) are entities whose symptoms are not directly attributed to primary or metastatic tumors. They are usually triggered by immunological mechanisms in response to tumor antigens or by hormonal factors. Their appearance may precede, be synchronous, or follow the diagnosis of a neoplasm. Breast cancer can also manifest itself through such syndromes. Dermatomyositis (DM), a rare disease, is an inflammatory myopathy that presents with progressive, symmetrical, proximal muscle weakness, and characteristic cutaneous findings. It is believed that approximately 10%–25% cases are healthy PS, and therefore are associated with a risk of cancer up from 5 to 7 times greater. In almost 20% of cases of DM associated with malignancy, a concomitant breast cancer is diagnosed. MCFS, 26 years old, nulliparous, without a family history of cancer was referred to the Mastology Clinic for an ulcerated nodule in the left breast (LM). She could not walk because of generalized muscle weakness. She reported an ulcerated nodule in the LM for a month, with rapid growth. On physical examination, she presented an exophytic nodule of 10 cm in the LM in the upper lateral quadrant, without palpable axillary's nodules. She also reported a diagnosis of DM from 8 months, which was the cause of myopathy and her skin lesions. She was hospitalized in the emergency department of the medical clinic 8 months ago, in which the hypothesis of DM was corroborated by the muscle injury enzymes and diffuse symmetric and bilateral edema of the thigh muscles and myoadiposis planes evidenced by nuclear magnetic resonance. Both are incisional biopsy of an exophytic lesion. Analysis revealed invasive carcinoma with extensive squamous differentiation, Grade 3, necrosis in 30% of the sample. CT of the chest, abdomen, and pelvis and a scintigraphy did not show metastases. Simple mastectomy and sentinel lymph node biopsy were followed by axillary dissection. The anatomopathological examination confirmed that metaplastic carcinoma with squamous differentiation had an associated intraductal component. In total, 20 lymph nodes were examined and 16 were involved. Immunohistochemistry: Estrogen and progesterone receptors were positive, HER2 was negative, and Ki-67 was positive in 25%. Invasive carcinoma of the nonspecial type. The patient is being followed up with the clinical oncology department of the University Hospital of Brasília to continue the treatment. Unlike primary conditions that generally affect middle-aged women, paraneoplastic myositis tends to affect very young or older patients, with more severe cutaneous-muscular implications. Malignancy risk factors are severe skin disease with necrosis, capillary damage on muscle biopsy, absence of lung disease, resistance to treatment, and absence of myositis-specific antibodies. The exact role of antibody tests for cancer screening in patients with myositis is not well established. In contrast, the presence of myositis-specific antibodies was related to a decreased risk of malignancy. Established DM diagnosis: cancer screening should be performed and consists of complete blood count, renal function, transaminases, mammography, oncotic colpocytology, chest x-ray, fecal occult blood, or colonoscopy. Surveillance for the possibility of cancer should be maintained in the first 5 years of muscle disease. We present this report as a warning that a frequent disease (breast cancer) can present unusual features (signs and symptoms of DM). It is important for clinicians to have the wit to consider occult cancer in the systemic process of DM, being that breast carcinoma is an important diagnosis due to its high frequency among women.

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35 - DERMATOMYOSITIS: A RARE PARANEOPLASTIC SYNDROME IN BREAST CANCER

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Breast cancer, the most frequent malignancy diagnosed in women, can feature uncommon presentations such as paraneoplastic syndrome, including dermatomyositis (DM). DM is a rare idiopathic inflammatory myopathy that affects adults and children, predominantly women. Many epidemiological studies demonstrated that adults with DM have an increased risk for malignancy. Early evidence came from case reports, but this link was later confirmed in case-control and population-based studies. According to recent data, the association between DM and malignancy ranges from 7 to 30% of cases. Therefore, when facing a diagnosis of DM, it is mandatory to perform a comprehensive oncological screening on the affected patient. The malignancies associated with DM comprise numerous tumors. In general, the DM delivers progressive symmetrical proximal muscle weakness and typical skin changes. The literature indicates that oncological treatment promotes amelioration of the rheumatologic condition in breast cancer cases. Although, cancer treatment alone is insufficient to adequately control the cutaneous and myopathic manifestations of DM, which can significantly affect the quality of life. A multidisciplinary approach, including close collaboration with rheumatologists and dermatologists, is crucial in diagnosing and managing oncology patients with DM. Unfortunately, till date, there is no consensus or protocols to guide the diagnosis, treatment, and follow-up of these patients. Global scientific knowledge of the topic still requires additional data to improve medical care for these patients. A 51-year-old woman, formerly healthy, progressively presented with a diffuse erythematous rash, Gottron's papules, V sign, Shawl sign, Holster sign, and mechanic's hands, in addition to proximal muscle weakness. After prompt investigation, the patient was diagnosed with DM. Hence, the patient underwent comprehensive neoplastic screening that revealed bilateral breast malignancy. Invasive ductal carcinoma was detected in the right breast and HER2 overexpressing invasive ductal carcinoma in the left breast. Staging indicated no metastases, and the patient was classified as cT2N2M0 in the left breast (stage IIIA) and cT2N0M0 in the right breast (stage IIA). Thus, the treatment plan began with steroids, followed by neoadjuvant chemotherapy, and, at last, the patient underwent a bilateral mastectomy. Neoadjuvant chemotherapy consisted of a scheme with doxorubicin and cyclophosphamide. The surgical therapy plan was mastectomy with axillary dissection for the left breast and mastectomy with selective lymphadenectomy for the right breast. The medical team observed improvement in signs and symptoms correlated to DM throughout treatment. During follow-up, there was no evidence of reactivation of the rheumatological condition.

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517 - DERMOSCOPY OF THE PAPILLA TO THE IDENTIFICATION OF HUMAN PAPILLOMAVIRUS SIGNS IN TEN BREAST CANCER PATIENTS COMPARED TO TEN CONTROLS WITHOUT BREAST COMPLAINTS

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Introduction: The etiologic role of human papillomavirus (HPV) in breast cancer has been investigated. It is inferred that HPV may be involved in breast carcinogenesis, although the effect-cause nexus has not yet been proved. To develop minimally invasive methods that would help identify the virus in the breast, dermoscopy of the mammary papilla arised. The use of the dermoscope aims to determine a pattern of HPV-infected nipples in women with breast cancer, contributing to establish the relation between HPV and breast cancer. If the presence of HPV in the nipple could be diagnosed, a significant step would be taken to identify women at risk of developing cancer. The possibility of a noninvasive method collaborating for the diagnosis of early breast cancer is extremely useful in daily care. ***Objectives:*** The aim of this study was to investigate the use of dermoscopy in the search for signs of HPV in the mammary papilla by comparing 10 cases (patients with breast cancer) and 10 controls (patients without breast cancer) and the possibility of a positive relationship between HPV infection and breast alterations. ***Methods:*** In all, 196 patients attended an appointment at the mastology department in a reference center for breast cancer. They were studied with a dermoscope in conjunction with a 2-mm puncture biopsy to obtain genetic material. DNA samples were extracted using the DNeasy Blood & Tissue Kit (Qiagen, Hilden, Germany), followed by PCR amplification for the conserved HPV E6-E7 region. Then, 20 patients were selected by HPV findings identified on the images, which were stored on the FotoFinder Hub platform. ***Results:*** In the pilot project, 10 cases and 10 controls were selected. These patients were submitted for a dermoscopy and puncture biopsy to evaluate the possibility of HPV infection. Of the 10 cases, 3 showed positive HPV typing test result and exhibited an invasive carcinoma of no special type. Of the 10 controls, 4 had a positive test. Although these four patients did not have cancer, they presented other benign alterations, such as fibroadenomatoid hyperplasia of the breast and granulomatous mastitis, which corroborates the hypothesis that HPV may cause replication of malignant and benign cells. Furthermore, the cases that tested positive for HPV showed on the dermoscopy images intriguing alterations, such as increased vascularization, pigmentation changes, exacerbation of the cobblestone pattern, crevice-shaped nipple opening, and inflammatory lesions that were not observed on the images of the patients that had a negative HPV test result. ***Conclusion:*** The dermoscopy of the papilla is able to find signs indicative of HPV presence. For that reason, the dermoscope can be a useful tool in risk stratification and early diagnosis of breast cancer, considering that HPV might be involved in breast cancer's carcinogenesis and other benign alterations.

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512 - DESCRIPTIVE EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH HER2-POSITIVE METASTATIC BREAST CANCER SUBMITTED TO PERTUZUMAB AND TRASTUZUMAB AT THE CANCER HOSPITAL OF PERNAMBUCO

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Introduction: HER2-positive breast cancer is characterized by a hyperexpression or gene amplification of human epidermal growth factor receptor 2, a tyrosine kinase membrane receptor that has a profile with major aggressiveness and worse prognosis among all molecular subtypes. The metastatic pattern of this disease is one of the greatest challenges in mastology and requires an urgency and effective therapeutics to control this disease. Advances in therapy have allowed more specific treatments for anti-HER2 treatment that allowed improvement in the overall survival and disease-free survival of patients. Double-block therapy, performed by using Trastuzumabe and Pertuzumabe, is the first-line treatment for metastatic HER2-positive breast cancer. This kind of therapy was initially adopted effectively by SUS in 2019. Therefore, it is advisable to consider the use of this therapy at the Cancer Hospital of Pernambuco (HCP) to analyze the current results in patients and assess the local results. ***Objective:*** The goal of this study was to understand the epidemiological profile of patients with HER2-positive metastatic breast cancer treated at the HCP and submitted to double-block therapy with Trastuzumab and Pertuzumab, analyzing progression-free survival and overall survival. ***Methods:*** This is a retrospective descriptive study conducted in November 2021. Relevant aspects of treatment, analysis of disease-free survival, and overall survival were analyzed in the medical records of patients with metastatic HER2-positive breast cancer who used Trastuzumab and Pertuzumab. The survey of the analyzed data was carried out by completing a specific form created by the researcher especially for this study. Anonymity and clarity of the information were ensured. ***Results:*** From 124 selected medical records, this study selected 78 patients with metastatic HER2 breast cancer, with a mean age of 50.4 years; 62.34% had positive hormone receptors and 44.87% had metastasis de novo. About 36% of patients had been using double-block for up to 6 months, which made it difficult to assess the behavior of the disease from medical examinations and images, given the short time; but it was found that of all patients, 15.4% have disease stability, 32.1% had regression, and 28.2% had disease progression. There was a median of 12 months for disease progression, but with a median of 11 months of use of double-block therapy with Trastuzumab and Pertuzumab. As for the overall survival, it is estimated, based on statistical data from the current sample, that an accumulated probability of death of up to 16.7% in up to 5 years. Women older than 60 years and those who had disease progression had a higher risk of death. ***Conclusion:*** This study evaluated metastatic HER2-positive breast cancer as a particular behavior tumor. The patients selected from the HCP submitted to the use of Trastuzumab and Pertuzumab in the metastatic scenario have a follow-up time still recent, which causes incipient data for the evaluation of specific outcomes that depend on the temporal component. Follow-up and updates of the analysis of outcomes are suggested, in the near future, to enrich the treatments proposed for the target population. Ethical aspect: This study was conducted strictly based on the Resolutions 510/16 and 416/12 of the Health National Council and was only conducted after HCP Research Ethics Committee approval.

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69 - DIAGNOSIS OF BREAST CANCER ASSOCIATED WITH PREGNANCY: A REVIEW OF LITERATURE

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Introduction: The diagnosis of breast cancer in pregnant and postpartum women presents challenges. The clinical management of the breasts during pregnancy and lactation requires knowledge of the physiological changes of the pregnant breast, as well as the correct identification and approach to possible changes. The reluctance of physicians and patients to perform radiographic tests and invasive procedures during this period should be discussed. ***Objective:*** The aim of this study was to demonstrate that all breast lesions found in these periods should be carefully evaluated, highlighting the importance of diagnostic evaluation methods, comparing the advantages, disadvantages, and possible false-negative factors of the methods frequently used in clinical practice. ***Methods:*** This is a literature review, which uses references found in scientific books on gynecology, obstetrics, and mastology, in addition to the use of the databases Medline, BVS, PubMed, UpToDate, and LILACS, applying to originals and literature reviews written in English, Portuguese, and Spanish. ***Results:*** The analysis of diagnostic methods in the context of breast cancer is associated with pregnancy, such as self-examination, anamnesis and clinical examination, ultrasonography, mammography, evaluation by core biopsy, evaluation by cytology, and evaluation by magnetic resonance imaging, presented as a result of limitations not found in nonpregnant women. The bibliographic study points to the need for individualized monitoring, analysis, and application, taking into consideration a woman's risk of developing breast cancer during her pregnancy and physiological and morphological changes in the breast. ***Conclusion:*** Early diagnosis is not common during pregnancy; consequently, more advanced stages are associated with breast cancer simultaneously to gestation. Therefore, even in pregnancy, any suspicion of breast lesion must undergo evaluation. Pregnant and postpartum women should have clinical breast examinations as a routine, making patients and health staff aware of their importance in the pregnancy-puerperal cycle. Advice about the self-examination, request for ultrasound, mammography, and biopsy is necessary.

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532 - DIAGNOSIS OF BREAST CANCER IN BRAZIL: REFLECTION ON THE IMPACT OF THE COVID-19 PANDEMIC

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Introduction: Breast cancer is the most prevalent oncological type and the leading cause of death by malignancy among women in Brazil and worldwide. At present, since the outbreak of COVID-19, an obstacle arises regarding the diagnosis and screening of new diseases, as well as in the continuity of treatment and follow-up of those women already diagnosed prior to the pandemic. ***Objectives:*** The objective of this work was to verify if the COVID-19 pandemic impacted the screening of breast cancer in women in Brazil. ***Methods:*** This is an observational, cross-sectional study, with a descriptive and quantitative approach, carried out with secondary data provided by the Cancer Information System (SISCAN/DATASUS), considering two temporal clippings — before the pandemic (2015–2019) and during the pandemic (2020 and 2021). Women diagnosed with breast cancer who underwent mammography between 2015 and 2021 were included in the study. Review by the Research Ethics Committee was waived because the public, aggregated, and unidentified data were used. ***Results:*** Between 2015 and 2021, 17,229,218 mammograms were performed in Brazil. The temporal analysis shows a gradual upward behavior in all years, reaching 49.6% growth in the period before the pandemic (from 2,047,504 mammograms in 2015 to 3,063,618 mammograms in 2019). Already during the COVID-19 pandemic, there was a change in the Brazilian epidemiological behavior, being evidenced a significant drop in the number of examinations performed. In 2020, 1,864,891 mammograms were recorded, representing a 39.1% drop, while in 2021, 2,606,074 mammograms were recorded, representing a 39.7% increase over the previous year, but if compared to the last prepandemic year, there is an important decrease in the amount of mammograms performed (14.9%). Besides this, another consequence was the underdiagnosis of some diseases, such as breast cancer. The estimate stipulated by the National Cancer Institute (INCA) for each year of the triennium between 2020 and 2022 was 66,280 new cases of breast cancer in Brazil. As with mammograms, in 2020, there was a 10.3% drop in diagnoses (n=46,509), which represents only 70.2% of the estimate made by INCA for 2020. In 2021, this drop was even more significant (n=24,446), representing only 36.9% of the expected for the period. ***Conclusion:*** Because of the emergence of COVID-19 and the magnitude of the pandemic, there was an epidemiological change in public health in Brazil, significantly impacting the screening, monitoring, and treatment of diseases with high incidence in the country. It is believed that this panorama will reflect in the increase of cases and their severity, besides impacting the costs of public health worldwide.

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7 - DUCTAL CARCINOMA IN SITU OF BREAST: CASES ANALYSIS IN AN ACADEMIC HOSPITAL IN THE FEDERAL DISTRICT

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Introduction: Breast cancer is the most common malignant neoplasm in women, after skin cancer, and one of the leading causes of cancer death in women. Diagnosing it as a premalignant lesion or "in situ" becomes challenging in the current conjuncture. Ductal carcinoma in situ (DCIS) is a proliferation of malignant epithelial cells within the breast ducts. These cells have a predilection for the terminal duct lobular unit and are restricted to the basement membrane of the ducts. Through mammographic screening, it is possible to identify DCIS, which is responsible for about 20% of cancers detected by mammography. ***Objective:*** The aim of this study was to evaluate the clinical, radiological, anatomopathological, and therapeutic aspects of patients with DCIS of the breast treated at an academic hospital in Federal District, Brazil. ***Methods:*** Retrospective, cross-sectional, descriptive, and observational studies were carried out through the analysis of electronic medical records of cases of patients diagnosed with DCIS, treated at the Hospital Regional da Asa Norte (HRAN) (Brasília/Federal District/Brazil), from March 2014 to March 2020. ***Results:*** Of the 196 patients surgically treated for breast cancer, only 19 (9.69%) had a diagnosis of DCIS. The mean age was 52.9 years, and the greatest involvement was in the fourth decade, with 28.57% of cases being referred to palpation of a breast lump. Most patients were symptomatic (57.14%). Most mammograms were categorized as BI-RADS IV (47.36%), with clustered microcalcifications being the most frequent finding (42.85%). The concordance rate between preoperative and postoperative biopsies was 61.53%. Most tumors were categorized as luminal B (42.85%) on immunohistochemistry. Only 49.8% of the patients underwent conservative surgery, and the axillary evaluation by sentinel lymph node biopsy (SLNB) was fulfilled in 14.6%. Mastectomy was performed in 50.2% of cases and in this group 94.7%, there was also axillary surgery by SLNB. In 5% had lymph node microinvasion. Half of the analyzed patients underwent radiotherapy after surgery, and 57.14% underwent hormone therapy. ***Conclusion:*** The low rate of DCIS in the study (9.69%) and the involvement of the disease in women under 50 years of age lead us to question the scope and accessibility of the mammographic screening program in the Brazilian Health Unified System (SUS) users, treated at the HRAN. We still have high rates of mastectomy and axillary surgery in the treatment of DCIS. Axillary dissection should be discouraged and SLNB carried out in specific cases. Knowing women with DCIS is essential to design interventions with the purpose of directing public policies to the population at risk, enabling early diagnosis, and improving the effectiveness of treatment.

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522 - EFFECT OF ACUPUNCTURE AND EXERCISE THERAPY IN REHABILITATION OF PHYSICAL DYSFUNCTIONS ON WOMEN BREAST CANCER SURVIVORS

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Introduction: The treatment of breast cancer can trigger physical dysfunctions and psychological difficulties such as pain, depression, limitation of upper limb function, and shoulder range of motion (ROM) deficits. Exercise therapy is a treatment well established in the literature for these disorders and acupuncture is an alternative to it. However, most studies using acupuncture only assess pain. ***Objective:*** The aim of this study was to compare three distinct rehabilitation treatments (exercise therapy, acupuncture, and Stiper®) in women undergoing breast cancer surgery, assessing pain, depression, upper limb function, and ROM parameters. ***Methods:*** In total, 79 women with pain above 3 on the visual analog scale (VAS) and with more than 90 days of surgery were included. The research was approved by the Research Ethics Committee (CEP) of the Universidade Federal de São Paulo/Hospital São Paulo on May 13, 2016, under number 1.543.582, and registered in the Clinical Trials Registry on January 11, 2016, with number NCT02798263. They were divided into three groups that received weekly treatment for 10 weeks: group I (G1) treated with standard, predefined exercise therapy, based on stretching of the cervical muscles, shoulder girdle, and shoulder ROM exercises with a duration of 30 min; group II (G2) treated with 30 min of acupuncture using predefined points; and group III (G3) treated with the same acupuncture points as group II, however, using the Stiper ® (silicon oxide micronized quartz pellet) in place of needles. ***Results:*** In all, 67 patients completed the treatment, being 26 from G1, 23 from G2, and 18 from G3. There was a decrease in pain over time in all groups (first session compared with the fifth ($p<0.001$) and with the tenth ($p<0.001$), but not between groups. There was a statistically significant difference in depressive symptoms using the Beck questionnaire over time in the three groups (between the first and tenth sessions [$p=0.001$], between the first and fifth sessions [$p=0.052$], but not between groups). Regarding the DASH questionnaire for shoulder function, there were significant differences over time at all evaluated moments ($p<0.001$), but not between groups. ***Conclusion:*** The rehabilitation of physical dysfunctions in women who survived breast cancer through exercise therapy, acupuncture, and Stiper® proved to be effective, without superiority between the groups. We conclude that acupuncture showed equivalent results when compared with exercise therapy, thus being an effective approach in the rehabilitation of these women.

Keywords: breast neoplasms; exercise therapy; acupuncture; depression; pain; range of motion, articular.

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523 - EFFECT OF ACUPUNCTURE AND EXERCISE THERAPY ON MUSCULAR STRENGTH, LYMPHEDEMA, AND QUALITY OF LIFE IN BREAST CANCER SURVIVORS

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Introduction: The continuous advancement in the early detection and treatment of breast cancer has significantly reduced mortality and, consequently, increased the number of survivors with treatment side effects that affect the quality of life, such as lymphedema, loss of upper limb strength, shoulder dysfunction, decreased functional capacity, flexibility, and joint mobility. Exercise therapy is a recognized practice for the rehabilitation of these disorders; however, acupuncture needs to be better evaluated to compare its equivalence with classical therapy. ***Objective:*** The aim of this study was to compare three distinct rehabilitation treatments (exercise therapy, acupuncture, and Stiper®) in women undergoing breast cancer surgery, assessing strength, lymphedema, and quality of life. ***Methods:*** In total, 79 women with pain above 3 on the visual analog scale (VAS) and with more than 90 days of surgery were included. The research was approved by the Research Ethics Committee (CEP) of the Universidade Federal de São Paulo/Hospital São Paulo on May 13, 2016, under number 1.543.582 and registered in the Clinical Trials Registry on January 11, 2016, with number NCT02798263. They were divided into three groups that received weekly treatment for 10 weeks: group I (G1) treated with standard, predefined exercise therapy, based on stretching of the cervical muscles, shoulder girdle, and shoulder ROM exercises with a duration of 30 min; group II (G2) treated with 30 min of acupuncture using predefined points; and group III (G3) treated with the same acupuncture points as group II, however, using the Stiper® (silicon oxide micronized quartz pellet) in place of needles. ***Results:*** In all, 67 patients completed the treatment, being 26 from G1, 23 from G2, and 18 from G3. There was an improvement in upper limb muscle strength over time in all groups, except for abduction and internal rotation movements. During treatment, there was no increase in the number of patients with lymphedema and there was no statistical difference between the groups. Regarding the EORTC QLQ-C30 quality-of-life questionnaire, 9 of the 15 factors analyzed showed significant differences between sessions. The factors that did not have significant differences between the three groups were social function, nausea and vomiting, dyspnea, loss of appetite, constipation, and diarrhea. ***Conclusion:*** The rehabilitation of physical dysfunctions in women who survived breast cancer through exercise therapy, acupuncture, and Stiper® in upper limb muscle strength, lymphedema, and quality of life proved to be effective, without superiority between groups. Thus, acupuncture showed equivalence of results when compared with exercise therapy, thus being an effective approach for the rehabilitation of these women.

Keywords: breast neoplasms; exercise therapy; acupuncture; muscle strength; lymphedema; quality of life.

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479 - EPIDEMIOLOGICAL CHARACTERISTICS AND INCIDENCE OF BREAST CANCER IN MALE PATIENTS IN A TERTIARY HEALTH INSTITUTION

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Introduction: Despite the rare incidence of malignant breast pathologies in men, it is extremely important to pay attention to any complaints related to breast alterations in men. Benign and malignant breast diseases are uncommon in men. In addition, most of the male population can be careless when it comes to their own health, especially in breast diseases, commonly seen as an exclusive condition for women. ***Objective:*** The aim of this study was to analyze the epidemiological profile of male patients treated at the Mastology Clinic in Rio de Janeiro, Lagoa's Federal Hospital (HFL), a tertiary health institution. ***Methods:*** In total, 40 medical records of patients who were assisted during 2020 and 2021 were evaluated. ***Results:*** The majority of patients were between 30 and 70 years old, and the major complaints (97%) were related to a tumor or to breast volume increase. Sixty percent of the patients were diagnosed with gynecomastia and, as a consequence, have been regularly observed throughout appointments since then. Some of these patients (12.5%) have reported the use of anabolic substances before the discovery. The breast cancer incidence in this male population was 22.5% during this period, and the patients affected by malignant tumors were between 47 and 74 years old. Most patients with breast cancer smoked (55%) and drank alcohol (22%). No patient had breast cancer in family history and only one patient was related to a family history of prostate cancer. A total of 66.6% of the male breast cancer in this study population was positive for hormone receptors, and the papillary carcinoma of the breast was the predominant histological type (44.4%). ***Conclusion:*** As other studies indicate, all of the patients were in an advanced stage of the disease since the first appointment at HFL. Low educational level, no knowledge about possible male breast cancer, insecurity, shyness and fear of possible social judgments about breast increase (especially in older patients), and carelessness when it comes to their own health were the preponderant factors for a clinically advanced disease among the patients at HFL. These factors were also relevant for a bad adaptation to the treatment, as well as emotional shakiness during therapy and follow-up: some patients showed symptoms such as apathy, deep sadness, and even depression. The male population assisted by the Mastology Clinic at HFL has similar features as the ones in equivalent studies. This research confirms the necessity of an increase in male's Health Care Education, family participation during treatment, and interdisciplinary care, considering the physical and emotional consequences of such diagnosis.

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524 - RETROSPECTIVE CROSS-SECTIONAL ANALYTICAL STUDY ON PREGNANCY-ASSOCIATED BREAST CANCER IN PATIENTS TREATED AT A CANCER CENTER

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Introduction: Breast cancer is the second most common malignant neoplasm among women in Brazil and worldwide. It is considered pregnancy-associated when the malignant tumor occurs during pregnancy and up to the first year after delivery. However, current studies show an increased prevalence of these cases, and their causality is not yet well explained. ***Objective:*** The aim of this study was to perform a descriptive analysis of the profile of patients with breast cancer during pregnancy treated at our facility from 2010 to 2020. ***Methods:*** This retrospective cross-sectional study analyzed electronic health records from a database. The sample consisted of pregnant or postpartum patients diagnosed with breast cancer and treated at AC Camargo Cancer Center from 2010 to 2020. Variables were described based on absolute and relative frequency distributions. Statistical analysis was performed using the Mann-Whitney U test and the independent samples Kruskal-Wallis test. ***Results:*** The final sample comprised 44 patients. The mean age was 35 years. Most patients had no comorbidities, were married, white, and had access to the service through health insurance (95.5%). Ductal carcinoma was the most prevalent (84.1%). The main molecular subtypes were luminal B without HER2 expression (34.1%) and triple negative (25%). About 30% of the cases were associated with some genetic mutation. Most patients were diagnosed in the postpartum period (70.5%). Recurrence occurred in five cases. We found four cases of death, three of which had oncological causes. The comparative analysis of variables that could lead to worse prognosis, such as genetic mutation and molecular subtypes, did not indicate a higher recurrence of cases, since they were not statistically significant. ***Conclusion:*** The profile of patients with pregnancy-associated breast cancer treated at this cancer center partly follows the trend of other centers.

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8 - EXERCISE AS AN ADJUVANT THERAPY FOR FATIGUE AND CARDIORESPIRATORY FITNESS IN BREAST CANCER PATIENTS: A REVIEW OF CURRENT EVIDENCE

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Introduction: During primary breast cancer (BC) treatment, both systemic and local therapies are used to eliminate tumoral cells and reduce the risk of recurrence or disease progression. However, despite the efficacy and success of these treatments, most patients have their quality of life affected by some treatment-related side effects. Among them, fatigue and reductions in cardiorespiratory fitness are commonly observed in response to treatment toxicities during and even following primary treatment. To date, exercise has been considered an effective intervention to counteract these side effects. In the past few years, guidelines from the American Cancer Society, American College of Sports Medicine, and Exercise and Sport Science Australia were published highlighting the importance of being physically active before or after a cancer diagnosis. Recently, the Brazilian Clinical Oncology Society also started a new guideline in exercise and oncology. However, even with numerous studies demonstrating that exercise is effective, the relationship between its prescription variables and effects on these outcomes is unclear. Consequently, it is of great interest to understand the effects of different exercise modalities (e.g., resistance training, aerobic exercise or combined resistance, and aerobic exercise) and their effects on fatigue and cardiorespiratory fitness. ***Objective:*** The aim of this study was to describe the effects and moderators of exercise on fatigue and cardiorespiratory fitness in women with BC. ***Methods:*** This is a narrative literature review concerning the exercise effects and moderators of exercise response on fatigue and cardiorespiratory fitness in women with BC. The search was undertaken in PubMed using the following terms: "cancer" AND "exercise" AND ("fatigue" OR "cardiorespiratory fitness") in November 2021. Given the specificity of the topic and outcomes of interest, we selected seven systematic reviews with meta-analysis to describe the exercise effects and moderators of exercise response on fatigue and cardiorespiratory fitness in BC patients. ***Results:*** In summary, the design of supervised exercise programs could benefit women with BC. In addition, exercise could result in greater effects in patients presenting higher levels of fatigue when compared to those who do not present. Some examples of supervised exercise programs are in studies from the Supervised Trial of Aerobic Versus Resistance Training (START), Combined Aerobic and Resistance Exercise (CARE), and Optimal Training Women with BC trials (OptiTrain). These studies prescribed resistance training, aerobic exercise, and combined resistance and aerobic exercise, 2–3 exercise sessions per week, 1–3 sets of 8–12 repetitions at 60–70% of one-repetition maximum (1RM) per resistance exercise, and 20–30 min of continuous or high-intensity interval aerobic exercise at 13–15 of the rated perceived exertion (RPE) scale. Regarding the exercise program prescription, supervised, high-intensity, or nonlinear schedule aerobic exercises are also associated with greater effects on cardiorespiratory fitness. The fact that supervised exercise results in greater benefits in cardiorespiratory fitness compared to unsupervised programs (supervised exercise, ES=0.34, 95%CI 0.28–0.40; unsupervised exercise, ES=0.19, 95%CI 0.07–0.32) is an important information. ***Conclusion:*** Sufficient evidence indicates that exercise promotes significant effects on fatigue and cardiorespiratory fitness in women with BC. In addition, specific subgroups of patients based on age and baseline levels appear to respond more favorably than others. Regarding contraindications, the exercise prescription should occur accordingly to and with the clearance of the oncologist and the medical team, respecting patients' individualities, the feasible period for exercise, symptoms, and treatment course.

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486 - EXTENSIVE DERMATOFIBROSARCOMA PROTUBERANS IN THE CHEST AND BREAST: A CASE REPORT

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Dermatofibrosarcoma protuberans (DP) is a neoplasm of the deep layer of the dermis and subcutaneous tissue. It presents a rare incidence and constitutes 0.1% of the malignant tumors. It has local aggressive behavior with slow tumor growth, low metastasis rates of around 5%, but has high rates of local recurrence after surgical excision. The diagnosis is histopathological through biopsy of the lesion, and the fluorescence in situ hybridization (FISH) method can help in selected cases by detecting possible chromosomal rearrangements in the tissue. Physical examination, magnetic resonance imaging, and computed tomography may be helpful in assessing the area of tumor extension. The treatment of choice is resections with 3-cm wide margins or Mohs micrographic surgery. The prognosis is directly related to the correct excision of the compromised margins. A woman, 51 years old, presented with a raised, brownish, irregular, 13×8 cm multinodular lesion attached to the overlying skin, in the epigastric region, which extended to the left hypochondrium and lower quadrants of the left breast, without local symptoms or lymph node enlargement. She reported the appearance of a small nodular skin lesion at the site 10 years ago and reports continuous growth of the nodule, with the involvement of the adjacent skin and the left breast starting 5 years ago, after the formation of a hypertrophic scar due to two previous local resections of the initial lesion. Mammography showed a nodule of cutaneous origin in the lower inner quadrant of the left breast, which may correspond to keloids — BIRADS 2. Breast ultrasound showed a solid, echogenic nodule measuring 1.6×1.2 cm in the left breast at 8 am; 2.5 cm from the nipple — suggestive of lipoma, and at 7 am, nodule measuring 2.4×1.6 cm that penetrates the breast parenchyma — BIRADS 3. The lesion was diagnosed as dermatofibrosarcoma on histopathological examination of a skin fragment. The patient underwent resection of the lesion with a safety margin by the mastology team and primary reconstruction using a thigh graft by the plastic surgery team. A surgical specimen was sent for anatomopathological examination that presented a result compatible with a previous biopsy, reiterating the diagnosis of DP, and with peripheral and deep surgical margins free of neoplastic involvement; evolved without postoperative complications or restriction of range of motion; and referred to radiotherapy to assess the need for additional treatment.

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519 - FIBROADENOMA AND PHYLOID TUMOR: CLINICAL DIFFERENCES AND IN IMAGING EXAMINATIONS

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Introduction: Among the fibroepithelial lesions, there are fibroadenoma and phyllodes tumors (PTs) that are breast neoplasms. Both of them offer breast lumps. Fibroadenoma is the most common benign breast lesion in young adult women. It has limited growth and does not usually exceed 2 cm, and in some cases it can present itself as a giant. More commonly, it affects the upper lateral quadrant, and it can be located in any quadrant, multiple, unilateral or bilateral forms. PTs represent less than 1% of fibroepithelial tumors in the breast, being more common around the age of 40. It can be benign, borderline, or malignant. ***Methods:*** An analysis about the theme was carried out in scientific articles using the various academic means of electronic data, with an emphasis on SciELO, Google Academic, LILACS, RBGO, BVS, and CAPES. A comparative study of fibroadenoma and PT was performed from 2018 to 2022. ***Results:*** Fibroadenoma is usually slow growing and painless. The association of clinical and imaging findings makes the follow-up of these lesions quite reliable. In contrast, PT manifests as a faster growing nodule that can be repeated even after excision and/or metastasize. The differential diagnosis between the two tumors is of extreme importance, bearing in mind the prognosis and therapy to be used in each one. Imaging tests, such as mammography and ultrasound, do not show pathognomonic signs of PT; however, as a support in diagnosis, ultrasound is a reliable method in cases of large and well-defined tumors, due to the presence of cystic areas interspersed with the solid mass. As for fibroadenoma, cytology associated with the clinical and imaging is part of the triple diagnosis, in case of doubt, FNA is added, which has a specific cytological aspect. ***Conclusion:*** Fibroadenoma is usually slow growing and painless. The association of clinical and imaging findings makes the follow-up of these lesions quite reliable. In contrast, PT manifests as a faster growing nodule that can be repeated even after excision and/or metastasize. The differential diagnosis between the two tumors is of extreme importance, bearing in mind the prognosis and therapy to be used in each one. Imaging tests, such as mammography and ultrasound, do not show pathognomonic signs of PT; however, as a support in diagnosis, ultrasound is a reliable method in cases of large and well-defined tumors, due to the presence of cystic areas interspersed with the solid mass. As for fibroadenoma, cytology associated with clinical and imaging is part of the triple diagnosis, in case of doubt, FNA is added, which has a specific cytological aspect.

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513 - FIBROADENOMA ARISING IN SUPERNUMERARY AXILARY BREAST TISSUE

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Supernumerary breasts occur in about 1–5% of women, most often in the armpits and are subject to the same benign and malignant diseases as normal breast tissue. A patient sought the health unit in February 2021 after noticing a palpable and painful nodular lesion in the left axillary region. An evaluation was performed by a gynecologist who requested an imaging test. The ultrasound showed lymphadenopathy in the left axillary extension with an unusual appearance, measuring 25.9×15.7×15.3 mm, BIRADS classification 4. She underwent ultrasound-guided core biopsy and the anatomopathological result was compatible with breast fibroadenoma. The patient was referred to the mastology service of Hospital Erasto Gaertner for evaluation. On examination, the presence of bilaterally palpable fibroglandular tissue in the axillary region is compatible with accessory breasts and two palpable nodules in the left axilla, the first with 3×1.5 cm in the anterior axillary line and the second with 1×1 cm in the posterior axillary line, both with fibroelastic characteristics. There are no palpable nodules or changes in breast imaging tests. It was proposed to the patient that the excision of the supernumerary glands bilaterally for further anatomopathological analysis. She will undergo the surgical procedure on Febraury 5, 2022.

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546 - GIANT CELL TUMOR OF THE BREAST WITH PULMONARY METASTASIS: A CASE REPORT

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Giant cell tumor of soft tissue (GCT-ST) is an extremely uncommon tumor that resembles GCT of the bone in morphology and immunohistochemistry, usually occurs in the superficial and deep STs of the extremities, and the breast is a very rare location. It is composed of a mixture of round mononuclear cells and multinucleated osteoclast giant cells. It is classified as an intermediate-type fibrous tissue cell tumor, occasionally metastatic type, that has a benign clinical course when treated adequately by complete excision. Therefore, local recurrence or distant metastasis is extremely rare. A 36-year-old female patient was admitted to the Mastology Service with a 20-cm palpable nodule in the left breast, associated with ectasia without signs of lymphadenopathy; reports hypertension, hypothyroidism, and hysterectomy in 2006, due to uterine myomatosis. In relation to family history, her father had prostate cancer. On imaging examinations, a breast ultrasound was performed and showed a solid and hypoechoic node, lobulated contour with small cystic areas inside, with post acoustic phenomenon, located in the superolateral quadrant of the left breast. Mammography confirmed BIRADS 0. The biopsy revealed an atypical epithelial lesion with abundant osteoclast-like giant stromal cells. Computed tomography of the chest revealed nonspecific pulmonary nodules in the right upper lobe, the largest measuring 0.5 cm. Immunohistochemistry concluded histiocystic neoplasm rich in multinucleated giant cells — Ki-67 15%, AE1/AE3, and GATA-3 negative, CD68 positive. As clinical management, a simple left mastectomy was indicated. Anatomopathology showed a fibrohistiocytic neoplasm with abundant osteoclast-like multinucleated giant cells, measuring 10.5 cm.

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489 - GIANT MALIGNANT PHYLLODES TUMOR: A RARE CASE REPORT

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Introduction: Phyllodes tumor (PT) of the breast is an infrequent neoplasm, which corresponds to less than 0.5% of the breast tumors. The age group at the greatest risk in women is between 35 and 55 years of age. They are classified as benign (60%–75%), borderline (15%–20%), and malignant (10%–20%). In their less aggressive form, they behave like benign fibroadenomas (FA), however, with a tendency to recur locally after excision without wide margins. In contrast, they may present a metastatic component in its most aggressive form. In general, they are referred to as voluminous tumors, larger than 5 cm, painless, of firm consistency, with a raised or lobulated surface, well defined, movable, and without compromising the skin or deep tissues. They are associated with inflammatory axillary nodes in 17% and metastatic in about 1%. Systemic spread is rare and primarily affects the lungs, bones, liver, and brain. However, the preoperative diagnosis is very difficult, since its clinical presentation, in imaging examinations and in biopsies, is like to FA, requiring surgical excision of the lesion for diagnostic confirmation. Surgical treatment alone is the first therapeutic choice. In smaller tumors, general segmental surgical resection with margins of at least 1 cm is necessary for local control. In very voluminous tumors, total mastectomy or adenomastectomy is performed, without the need for axillary dissection, due to the low probability of lymphatic metastasis. Adjuvant radiotherapy is controversial, with a reduction in the rate of relapses, but without a reduction in mortality. A 67-year-old patient came to the gynecology emergency deparment reporting an ulcerated lesion in the right breast for 3 months, associated with intense right breast tenderness and local fetid secretion. She reported an involuntary weight loss of 6 kg and a progressive increase in the lesion, which at the time of the consultation affected practically the entire breast. She reported active smoking for 40 years. On physical examination, a necrotic-looking tumor was observed, occupying all quadrants of the right breast, with local fetid secretion. She underwent core biopsy, which resulted in a poorly differentiated, high-grade malignant neoplasm in the breast and skin on the right, with breast neoplasia to immunohistochemical marking of prognostic factors: estrogen receptor (ER) negative, progesterone receptor (PR) negative, KI67 positive 50%, and HER2 negative. She underwent right mastectomy with sentinel lymph node biopsy. The anatomopathological conclusion reported histological aspects of a malignant PT of the breast (cystosarcoma phyllodes). The tumor measured 21×15×9.5 cm, with a high-grade epithelioid appearance and necrosis in 60% of the neoplasm, in addition to the ulcerated skin affected by the malignant lesion, with areola and nipple free of invasion. The margins were free and there was no evidence of vascular invasion. In all, 30 mitotic figures were present in 10 CGA in sarcomatous areas. Two sentinel lymph nodes were isolated and were free of neoplasia. Immunohistochemistry was repeated: KI67 is 45%, HER2, ER, and PR are all negative. The patient was referred for outpatient follow-up at Clinical Oncology, which started adjuvant radiotherapy.

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477 - GIANT PHYLLODES BREAST TUMOR AFTER INDUSTRIAL SILICONE INJECTIONS: A CASE REPORT

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A phyllodes tumor is an uncommon lesion in the breast. There are three forms of presentation: benign, borderline, and malignant. The major incidence of phyllodes tumor is seen in women between 40 and 50 years old, and the benign presentation is the most frequent, being more current in those women, the reason why it is so relevant to have a complete exeresis of the lesion with free surgical margins. We present a case of a female patient with a giant phyllodes tumor on the right breast after an industrial silicone injection. In March 2021, a 60-year-old patient suffering from high blood pressure and anxiety was assisted at the Mastology Clinic at Hospital Federal da Lagoa (HFL). Before 28 years, she had submitted to an industrial silicone injection in the breast, with no medical evaluation before or after the procedure. In 2016, she found a tumor in her right breast, a lesion with a progressive growth. In October 2020, she noticed an ulcer near the tumor, which is why she sought medical help. After two biopsies with no malignant evidence, she was forwarded to our service, presenting an extensive injury at the right breast: an ulcerated lesion filling (>12 cm), filling the lateral aspect of the breast, with bleeding areas and necrosis. The papillary areolar complex was completely deviated to the medial side. Another biopsy was made, but the results were again inconclusive of malignant cancer, despite the clinical features. The axillary area was affected by lymphadenopathy. The left breast had uncountable tumors, because of the industrial silicone injection. The patient chose the mastectomy of both breasts, afraid of a possible malignant disease. The surgery was performed in June 2021, with a lymph node biopsy on the right side. The histopathology reported a giant and benign phyllodes tumor (15×13 cm) with an extensive inflammatory process, necrosis, calcification, edema, vascular congestion, fibrosis, and foreign body giant cells reaction. The skin and papilla were attacked by the inflammatory process in all the depths of the dermis. The lymph nodes just presented an inflammatory process and surgical margins were free. The left breast presented the same lesions of the inflammatory process visible in the right breast. The patient remains in follow-up, considering the possibility of recurrence of the phyllodes tumor, and awaiting the appropriate time for breast reconstruction. Although there is no evidence about the risk factors for developing a phyllodes tumor, there is no doubt about the mutagenic potential of the silicone liquid in the body. The relevance of this study is based on the rare clinical disease and on the problem associated with illegal practice of aesthetic medicine, still frequent in our society.

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463 - GRANULOMATOUS MASTITIS CAUSED BY HISTOPLASMA CAPSULATUM

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Histoplasma is a thermally dimorphic fungus with endemic and opportunistic behavior, which causes a systemic disease known as histoplasmosis. The habitat for this fungus is soil laden with bird and bat droppings, in caves and henhouses, and it persists in the environment long after the contamination. This fungus is widely disseminated in the American continent. In South American countries, the disease is mainly present in Venezuela, Colombia, Peru, Brazil, Argentina, and Uruguay. Man is contaminated by inhaling conidia present in nature, and most infections are mild and subclinical. After being inhaled, conidia undergo phagocytosis by macrophages and mononuclear cells, which are unable to destroy them. They multiply inside these cells, traveling through mediastinal and hilar lymph nodes and into the bloodstream, spleen, bone marrow, liver, skin, and subcutaneous tissue. The diagnosis is based on the detection of the fungus in secretions or tissues and in serology tests. Among these tests, enzyme-linked immunosorbent assays are more sensitive and specific than complement fixation. Tissue biopsies show epithelioid granulomas, with or without necrosis, and fungi within phagocytic cells. Gomori-Groccot staining is required for the visualization of the fungus. A 22-year-old female patient, an undergraduate psychology student, from the urban area of the inner state of Sergipe, no comorbidities, vegetarian, visited a mastologist due to the recent appearance of a nodule in the right breast associated with signs of inflammation and no fever. The clinical examination showed a 2 cm palpable, retroareolar thickening, and thickening of the areolar skin with discrete hyperemia, and no palpable axillary lymph nodes. The patient was initially treated with amoxicillin and clavulanic acid for 7 days. After treatment, there was regression of the inflammation signs upon physical examination; however, the thickening remained and the areolar skin was still thickened and hard. An ultrasound of the right breast showed a well-defined heterogeneous, superficial, and elongated retroareolar nodular image, measuring 3.4×1.2 cm. A breast ultrasound-guided fine-needle aspiration (FNA) was performed, and the cytology test suggested an inflammatory process. After 1 month, the patient returned with two areolar fistulas with yellowish discharge. A new cycle of antimicrobial therapy was started with clindamycin for 14 days. The secretion was decreased over the antibiotic period; however, 14 days after the treatment, the two areolar fistulas were still present with yellowish discharge. A third cycle of antibiotic therapy with metronidazole was administered with no improvement. An excisional biopsy was performed of the area around the fistula and the underlying breast tissue. Two specimens were examined — one skin specimen with the fistulizing areas measuring 1.9×0.8×0.8 cm, and the other specimen measuring 1.7 cm, corresponding to the breast tissue beyond the fistulas, measuring 1.7×1×0.2 cm. Histopathological evaluation of the specimen showed a chronic, granulomatous inflammatory process, with exudative foci and formation of a fistulous tract, chronic inflammatory lymphoplasmacytic reaction, fibrosis, and giant cell reaction. Screening for fungi (Groccot) showed small, clustered yeast-like structures in the cytoplasm of macrophages, suggestive of histoplasmosis. The patient's clinical tests included hemoglobin of 9 and a white blood cell count of 3,500, with a normal differential count. Screenings for HIV, hepatitis B, and hepatitis C were negative, fasting blood glucose was normal, and liver function was normal. The anemia investigation revealed only a ferroprivic component because of the vegetarian diet. The patient was subjected to general chest and abdominal examinations with no abnormalities. The patient was started on itraconazole 200 mg a day for 1 year, with no relapse until the end of the treatment.

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478 - HIGH LEVELS OF SATISFACTION WITH CARE AFTER BREAST CANCER SURGERY

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Introduction: Despite improvements in surgical techniques, oncologic breast surgery can have a profound impact on women's health. Advances in breast cancer treatment result in longer survival times, highlighting the importance of conceptions of quality of life and personal satisfaction. Evaluating these outcomes in surgical breast cancer patients provides essential information to improve shared decision-making. ***Objectives:*** The purpose of this study was to evaluate satisfaction with care in patients undergoing breast-conserving surgery (BCS) or nipple-sparing mastectomy (NSM) for the treatment of breast cancer. ***Methods:*** This is a retrospective cross-sectional study using a database of women who underwent BCS or NSM for breast cancer treatment from January 2017 to December 2017. All procedures were performed by a same senior breast surgeon. Clinical-pathological data were assessed from the medical record and the patient's follow-up was updated during appointments. All patients filled out an electronic version of the BREAST-Q questionnaire. This study received approval from the ethics committee of the Pontifícia Universidade Católica do Rio Grande do Sul and all participants signed the consent form. ***Results:*** The BCS and NSM groups were composed of 75 and 70 women, respectively. Patients in the NSM group were younger at the time of surgery than those in the BCS group, with a mean age of 45.4 and 55.7 years, respectively ($p<0.05$). The median follow-up time since surgery was 29.2 months in the BCS and 28.1 months in the NSM group ($p=0.876$). Satisfaction with care was extremely high and not statistically different between groups. The related satisfaction scores by BCS and NSM groups were respectively: with surgeon 98.1±5.4 versus 96.3±8.8, with medical team 97.7±7.2 versus 94.8±16.8, with office staff 97.4±11.2 versus 96.9±8.2, and with surgeon's information 80.8±23.8 versus 80.1±19.2. After adjustment for clinical-pathological variables, we found no difference in the results compared to the nonadjusted analysis. ***Conclusion:*** Our study shows that there is no difference in satisfaction with care between women who underwent BCS and NSM for the treatment of breast cancer. Furthermore, the level of satisfaction was extremely high in both groups, highlighting the importance of the support offered by the surgeon and his team, and patient's involvement in the decision-making process regarding surgical treatment.

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488 - HISTOPATHOLOGICAL AND EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH INVASIVE LOBULAR CARCINOMA OF THE BREAST TREATED AT A REFERENCE HOSPITAL

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Introduction: Breast cancer is the most common and the second leading cause of cancer death among women worldwide. It is known that invasive breast carcinomas are the most frequent, with 75% of them subclassified as invasive ductal carcinoma (IDC), 15% as lobular, and 10% as special subtypes. Classic invasive lobular carcinoma (ILC) is characterized by discohesive tumor cells, low mitotic rate, invading singly or in single concentric rows around ducts, and associated with loss of E-cadherin protein expression. ***Objective:*** This study evaluated the histopathological and epidemiological profiles of patients with ILC of the breast treated at a reference hospital from January 2018 to December 2020, in Fortaleza, CE. ***Methods:*** This research is characterized as a retrospective, analytical, descriptive, and quantitative, using data from the electronic medical records of patients treated at the Hospital Haroldo Juaçaba (HHJ),; data collection was based on a protocol developed by the researchers, which contained the following variables: sex, age, clinical presentation, alterations in imaging examinations, clinical and pathological staging, histological grade and subtype, presence of molecular markers estrogen receptor (ER), progesterone receptor (PR), HER2 (human epidermal growth factor 2), KI-67 (proliferative index), locoregional and systemic therapy of choice, and response to neoadjuvant systemic therapy. ***Results:*** It was observed that all patients (119) were female, with a predominant age between 50 and 59 years. A significant number of patients had clinical changes that contributed to the diagnosis; among them, the presence of nodules was the most frequent (92.2%). As for imaging examinations, mammography showed lower rates of ILC detection when compared to ultrasound examinations (69.7% and 75.6%, respectively). Most patients were identified at stage IIA in the clinical and pathological evaluations (42.9% and 23.5%, respectively). On histology, 58% of the carcinomas were grade II, while 92.4% belonged to the classic subtype. There was also a high level of positivity for markers ER (95%) and PR (81.5%), suggesting the prevalence of the luminal-like molecular profile (95%). In the context of surgical interventions, 62.2% of patients underwent mastectomy and 45.4% underwent only sentinel lymph node biopsy in the axillary approach. Regarding neoadjuvant therapy, 70.8% of the patients presented regression in the tumor stage. Endocrine therapy was used by 78.2% of the women in the adjuvant. ***Conclusion:*** Invasive lobular neoplasms have distinct characteristics, with a unique clinical and histopathological profile. The lack of studies that can be used to conduct cases and treat this pathology is highlighted, thus reinforcing the importance of this research.

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514 - HMGB1 EXPRESSION IN PATIENTS WITH TRIPLE-NEGATIVE BREAST CANCER: IS A GOOD MARKER FOR PROGNOSIS?

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Introduction: Breast cancer is one of the most frequent neoplasms worldwide, contributing to women's morbimortality. Triple-negative breast cancer (TNBC) is a highly aggressive subtype of cancer marked by negative estrogen receptors, progesterone receptors, and lack of the human epidermal growth factor 2 (*C-erbB2, HER2/neu*) gene overexpression. The high mobility group box-1 (HMGB1) is considered a DAMP (Molecular Pattern Associated Damage) regulating malignant tumorigenesis, proliferation, and metastasis. ***Objective:*** The HMGB1 expression was investigated as a prognostic factor for the TNBC. ***Methods:*** Clinicopathological data were assessed from 85 patients treated at the Haroldo Juaçaba Hospital (Ethics Committee approval number 18946313.3.0000.5528). Besides, a tissue microarray (TMA) block was constructed containing the patient. Then, immunofluorescence for HMGB1 was performed to quantify the intensity of expression and the percentage of fluorescent cells with cytoplasmic HMGB1 (cHMGB1) expression. Immunohistochemistry was performed for HMGB1. The analysis statistic is considered as significant with a statistical value of $p<0.05$. ***Results:*** The clinicopathological data analysis indicated that patients were older than 50 years (68.2%) and diagnosed with grade 2–3 ductal carcinomas (91.8%). Tumor metastasis was observed in 9.9% of cases. In all, 66.7% of TNBC patients who had adjuvant chemotherapy was low expression of HMGB1 ($p<0.05$). In addition, tumor cells that presented low cHMGB1 fluorescence demonstrated an increased local tumor recurrence compared with high expressing tumors ($p<0.05$). A 5 year overall survival was similar between patients with low versus high cHMGB1 expression ($p=0.155$).

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485 - IMPACT OF A SHORT TRAINING PROGRAM IN MAMMOGRAPHIC POSITIONING IN THE CLINICAL QUALITY OF THE EXAMINATION

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Introduction: Breast cancer is the most common malignancy in women worldwide, with the exception of nonmelanoma skin tumors. The initial stage of breast cancer is one of the main predictors of survival. Mammographic screening is the most effective method for an early detection of breast cancer and premalignant lesions, with an impact on reducing mortality, considering that correct positioning during the examination is a critical factor for its quality. ***Methods:*** A case-control study of a mammography positioning training program (MMG) in a private center specialized in breast diagnosis. In total, 200 incidences were evaluated in 50 examinations performed by two experienced techniques, 25 examinations each. Performance criteria were evaluated in the mediolateral oblique (MLO) and craniocaudal (CC) views. In the CC, well-demonstrated lateral quadrants (QLAT), visualization of the pectoral muscle (MP), centralized nipples (MC), well-demonstrated medial quadrants (QMED), absence of pleats or folds, centralized nipples, and symmetrical breasts were considered as adequate positioning. Buck's low positioning was considered an error criterion. In the MLO assessment, the criteria for adequate positioning were the inframammary angles (AI) visualized, nipples profiled and at the height of the MP, symmetrical breasts, absence of pleats and folds, and symmetrical MP. Pending breasts and pectoralis minor (PP) visualization were considered positioning failures. An 11-h theoretical-practical training was applied: 7 h of practice and 4 h of theory; new tests were performed and the quality criteria were reassessed. ***Results:*** Positioning errors were significantly decreased after the training. Errors in the CC incidence decreased from 39% to 11% and in the MLO from 36% to 13%. After the training, the following improved criteria were evaluated in CC: QLAT well shown rose from 50% to 94%, MP visualization rose from 21% to 62%, MC rose from 49% to 79%, QMED well shown rose from 45% to 100%, absence of pleats or folds rose from 74% to 88%, profiled nipples rose from 91% to 95%, and symmetrical breasts rose from 86% to 98%. Buck's low positioning dropped from 19% to 0%. In the MLO incidence, the criteria that improved were: AI visualization rose from 45% to 82%, profiled nipples rose from 93% to 95%, nipples at MP height rose from 24% to 84%, absence of pleats or folds rose from 39% to 70%, symmetrical breasts rose from 90% to 100%, symmetrical MP rose from 56% to 82%, symmetrical nipples rose from 72% to 86%, and PP visualization dropped from 13% to 7%. ***Conclusion:*** The MMG positioning training program improved examination quality. It acts on a vulnerable part, which is human error. The result indicates that a simple, low-cost intervention with low technological complexity can significantly impact the quality of MMG and screening programs in our country.

Keywords: mammography; breast neoplasms; patient positioning.

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460 - IMPACT OF DELAYED ADJUVANT RADIOTHERAPY ON BREAST CANCER

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Introduction: In documents from the Brazilian Society of Radiotherapy, quantitative analysis revealed that radiotherapy sessions, when performed, have not been timely. The average waiting time between the diagnosis data and the start of radiotherapy has been, on average, 113.4 days — which can consistently affect the chances of being cured for many patients. In some regions, waiting time is even longer; not infrequently, patients are treated with outdated methods and unprecision machines. Radiotherapy in Brazil is in a critical situation, especially with regard to the care of patients assisted by the Brazilian Public Health System (SUS). The main problems that contribute to this scenario are related to inadequate description and poor installation capacity, both from the point of view of the number of devices and their geographic distribution. ***Objective:*** The aim of this study was to determine whether delaying the initiation of adjuvant radiotherapy is related to decreased survival in women with breast cancer. ***Methods:*** This is a retrospective, descriptive, and longitudinal study (cross section) of patients admitted to the CRI/IBO, Niterói, RJ, all from SUS. Through the review of medical records, 81 patients were selected. Only patients diagnosed with stage IIb (T3N0) breast malignancy according to the American Joint Committee on Cancer TNM 8th (AJCC) were included. The analysis was performed by the time taken to start the radiotherapy after the initial treatment, which was treated by conservative surgery followed by adjuvant chemotherapy. The cohort was divided into two groups according to the timing of radiotherapy after the initial treatment: <6 months and >6 months. Results: In the data analysis, it was observed that 70 (86.4%) patients did not have disease recurrence, while 11 (13.6%) patients had tumor recurrence. The average time between the end of the last chemotherapy day and the start of adjuvant radiotherapy was 6.1 months (1–12/95%CI 5.5–6.8, SD±2.9). Referring patients to those who provide adjuvant radiotherapy at <6 months (group A) and those with >6 months (group B), we have 36 patients (44.4%) in group A and 45 patients (55.6%) in group B. In group A (36 patients), 34 patients (94.4%) did not have tumor recurrence and 2 (5.6%) did have tumor recurrence. In group B (45 patients), 36 (80%) patients did not have tumor recurrence and 9 (20%) did have tumor recurrence, with p=0.0001. Bearing in mind that the objective of the study is disease-free survival in 5 years, the mean follow-up time of patients was 69.8 months (51–92/95%CI 68.2–71.3, SD±7.0). It was evaluated that patients who had adjuvant radiotherapy in less than 6 months had a longer survival than patients who had more than 6 months (p<0.001). Therefore, patients with a delay of more than 6 months in the initial adjuvant radiotherapy treatment had an impact on the 5-year disease-free survival. ***Conclusion:*** This study is not conclusive, but we were able to observe data that show a worsening in the patient's survival and prognosis in relation to the delay in the radiotherapy treatment. However, the waiting time for radiotherapy should be as short as reasonably possible, as there is a possibility that this delay will cause worse disease control rates.

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510 - IMPLEMENTING AN EXERCISE ONCOLOGY PROGRAM FOR BREAST CANCER PATIENTS IN BRAZIL: THE MAPLE TREE CANCER ALLIANCE EXPERIENCE

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Introduction: Breast cancer (BC) has already been extensively studied in the field of exercise oncology, with a 300% growth rate for publications in the past 12 years, after the American Society for Sports Medicine published the first round-table for exercise in cancer survivors. However, even with numerous studies demonstrating effectiveness, there is a lack of information for health-care professionals, including breast surgeons and clinical oncologists, and also for patients and caregivers. Despite this, specialized programs and exercise professionals trained to support this population are rare, and it is not different in Brazil. Maple Tree Cancer Alliance (MTCA) is a nonprofit organization working with cancer patients since 2011 in the United States. In 2019, an international process was started, and the first unit outside the United States started operating in 2020 in Brazil. The exercise protocol developed by the MTCA includes resistance training and aerobic modalities, prescribed in a phase system, according to the kind of treatment the person is doing for cancer, and also according to cardiovascular fitness and previous experiences. Patients were followed for a period of 12–48 weeks, and assessments were done before starting, every 12 weeks. ***Objective:*** The aim of this study was to describe the first-year experience for MTCA in Brazil, until December 2021. ***Methods:*** Every patient starting the MTCA program performs an initial assessment, to get information about the disease, treatment, cardiovascular fitness, and corporal measures. The assessments are repeated in a 12-week interval. Parameters like weight, body mass index (BMI), body weight (with bioimpedance), muscle strength, flexibility, cardiovascular fitness, and postural evaluation are scored and compared with previous analysis during the patient's participation. ***Results:*** During the first year of operating in Brazil, the MTCA performed 107 physical assessments. Of these, 86 were BC patients, either during (chemotherapy, radiotherapy, or hormone therapy) or post-treatment (80.37%). In all, 20 patients did not continue the exercise program (23.25%), and there were 2 deaths (2.32% — all patients in this group started the program as metastatic BC). The mean age was 50.69 years old (26–79 years old). We observed in the BC patients, as reported in the literature, higher rates of overweight and obesity: mean BMI was 28.57 kg/m^2 (ranging from 19.1 to 47 kg/m^2). Overweight and obese patients correspond to 75.6% according to the first assessment measure. Comparing initial assessment and the first reassessment, 40 patients have completed the first phase of MTCA training, 45% lost weight, 47.5% gained, and 7.5% were stable. The mean weight gain was 3.49 kg and the mean weight loss was 1.9 kg. Treatment phase was not considered in this observation. We also observed some resistance for health-care professionals in authorizing the participation in exercise for metastatic patients. It is important to score that the same benefits are seen in this group of patients, especially with regard to treatment side effects, and we already have a recently published guideline for exercise in bone metastasis scenery. ***Conclusion:*** Many challenges were faced in the first-year experience for MTCA in Brazil. Despite legal bureaucracy, engaging patients, clinicians, and breast surgeons in exercise oncology is certainly difficult, especially for metastatic patients. We could observe a high rate of BC patients and survivors in overweight and obesity, and with resistance to nutritional education and to change their life habits. It is important that health-care professionals encourage their patients to participate in exercise protocols, but also in nutritional education. Patient reports are unanimous for a better quality of life and less side effects after engaging in the exercise program. As an ongoing work, we hope to decrease the dropout rate and improve weight loss and also deliver the standard exercise program from MTCA to other cities in Brazil.

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480 - INDICATIONS AND OUTCOMES OF BREAST CANCER PATIENTS UNDERGOING NSM: YOUNG VERSUS ELDERLY WOMEN

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Introduction: Young age at breast cancer diagnosis is associated with tumor aggressiveness and treatment efficacy. Previous studies showed more aggressive clinicopathological characteristics and worse prognosis in young patients who underwent breast-conserving surgery or mastectomy compared with elderly patients. ***Objectives:*** The aim of this study was to compare indications and outcomes of young (<40 years) versus elderly (>60 years) breast cancer patients undergoing nipple-sparing mastectomy (NSM). ***Methods:*** Between January 2004 and December 2018, we evaluated 85 young and 33 elderly patients who underwent NSM for breast cancer treatment. All patients were operated by the same surgeon, the data were retrospectively evaluated by the medical chart and the patients' follow-ups were updated during the appointments. ***Results:*** The indications for NSM were for ipsilateral breast cancer recurrence in 3.5%×25%, compromised margin after previous surgery in 4.7%×5%, and for early breast cancer in 91.8% and 52.5% of young and elderly patients, respectively. Young patients presented a stronger family history of breast cancer (p=0.003) and diagnosis of BRCA mutation (p=0.0001), underwent more bilateral NSM (p=0.008) and axillary surgery (p=0.0002) and received more frequent chemotherapy (p=0.05) and radiotherapy (p=0.005) than elderly patients. Elderly patients underwent more NSM for ipsilateral breast cancer recurrence (p=0.0001), presented more ILC tumors (p=0.006), and performed more hormone therapy (p=0.03) compared to young patients. The mean follow-up was 45 months for all patients. The overall recurrence rate was higher in young than in elderly patients (p=0.04); however when separated by local, locoregional, contralateral, and distant metastasis, no statistical difference was observed between the groups. Six (7%) young patients presented local relapse, four (5.6%) invasive, and two (14.3%) in situ tumors, suggesting that in situ tumors have a greater chance of relapse in young patients. No difference in overall survival was observed between young and elderly patients. ***Conclusion:*** In the mean follow-up of 45 months, we highlighted clinicopathological and treatment differences between young and elderly breast cancer patients undergoing NSM. No difference was observed in local, locoregional, distant recurrence, and overall survival between young and elderly patients; however, further studies with longer follow-up are needed to clarify these results.

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461 - INVASIVE CARCINOMA IN A FIBROADENOMA

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Fibroepithelial lesions of the breast comprise a heterogeneous group of neoplasms that range from benign to malignant. Breast cancer can arise within a benign tumor or the tumors can coexist independently. A 48-year-old woman presented with a structured palpable nodule in the breast for 2 years. In the course of the follow-up, a growth was noted where it was decided to perform a core biopsy resulting in a low-grade invasive cribriform carcinoma in fibroadenoma. Some treatments such as quadrantectomy with negative sentinel lymph node biopsy and free surgical margins, chemotherapy, and radiotherapy were carried out at the time of follow-up using tamoxifen without complications. This case contemplates a rare association of two breast diseases and the value of the histological examination for the diagnosis of malignancy. Fibroadenomas are not normally considered a risk factor for carcinoma. In a review of the literature, an attack of a carcinoma evolving into a fibroadenoma ranged from 0.002% to 0.0125%. A carcinoma that occurs in a fibroadenoma can be considered a casual occurrence, once the epithelial component of a fibroadenoma is subjected to the same stimuli and triggers as the rest of the breast. Carcinoma may arise in adjacent breast tissue surrounding or infiltrating a fibroadenoma, or it may be entirely restricted to or, at least, predominantly, a fibroadenoma.

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482 - INVASIVE LOBULAR BREAST CANCER METASTATIC TO THE ORBIT: A CASE REPORT

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Invasive lobular carcinoma represents 5%–15% of breast carcinomas, presenting in many cases as multicentric and bilateral tumors with low mammographic detection. The most common breast cancer metastases are the bones, lungs, brain, and liver. However, the disease can also spread to abdominal cavity, ovaries, and skin. The orbit is an infrequent site of tumor metastasis, ranging from 1% to 13% among all orbital tumors, and breast, lung, and prostate are among the most common primary sites. We report the case of a 73-year-old female patient who presented with a palpable mass in the left orbital rim, whose incisional biopsy revealed a pattern compatible with invasive breast carcinoma with lobular characteristics and E-cadherin overexpression, luminal molecular subtype B. She denied breast complaints and palpable nodules, but on clinical examination she showed a tumor in the inferolateral quadrant of the left breast measuring 6 cm and a left axilla with lymph node enlargement suspected of lymph node involvement. Mammography identified suspicious nodulation in this topography, confirmed by ultrasound. The diagnosis made through core biopsy was an invasive breast carcinoma with lobular characteristics, and the immunohistochemical profile showed luminal molecular subtype B. Systemic staging revealed involvement of the retroperitoneum, left ovarian annex, vertebral bodies, pelvis, right femur, and left iliac suspected for secondary involvement. The patient is currently undergoing adjuvant systemic treatment.

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5 - CO_2 LASER THERAPY IMPROVING THE SEX LIFE OF WOMEN AFTER BREAST CANCER TREATMENT: 92 CASES

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Objective: The aim of this study was to verify the response to CO_2 laser therapy regarding vaginal dryness in women submitted to this treatment in a facility in the state of Minas Gerais, Brazil. ***Methods:*** This is a prospective descriptive case series based on patients treated by the same team with the same Monalisa device of the Beker company. The treatment consisted of three sessions, adopting the same energy and pulse pattern from January 2019 to December 2021, with records of predefined information and the use of the R and SPSS PC software for data analysis. ***Results:*** A total of 92 women with a mean age of 60.3 years +10.6 (ranging from 28 to 92 years) were treated in the facility for vaginal dryness. Vaginal dryness improved in 94.6% of cases. Sex life improved in 81% of cases, and sexual intercourse increased by 66%. They would all recommend the examination to a friend. We found no statistical significance for the use of tamoxifen (12 cases), anastrozole (8 cases), previous chemotherapy (27 cases), and time between surgery and laser therapy ($p>0.05$). ***Conclusion:*** The study shows good results, with CO_2 laser therapy improving vaginal dryness and sex life; however, the sample limitation prevents the statistical analysis of subgroups.

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465 - LESIONS OF UNCERTAIN MALIGNANT POTENTIAL (B3): A REVIEW OF LITERATURE

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Introduction: The lesions of uncertain malignant potential of the breast classified as B3 have always raised many doubts regarding the management of these patients. Comprising a very heterogeneous group of cellular and tissue abnormalities, its underestimation rates for in situ and invasive breast cancer bring a lot of discomfort to the breast surgeon. ***Objective:*** The aim of this study was to clarify these pathologies, the pathways for their diagnosis and management, exemplifying their subsequent and most recommended follow-up. The main diagnostic methods of minimally invasive biopsy and the main corresponding images motivated this work. Each specific group of lesions is presented in detail with their histological particularities and their current underestimation rates. ***Method:*** A literature review was performed based on consensus and current articles of relevance in breast diseases for which articles were selected from the following databases: ScienceDirect, WileyOnlineLibrary, SpringerLink, RSNA.ORG, ELSEVIER, and PubMed. ***Results:*** The types of B3 lesions are wide and their diagnosis is made based on imaging findings, biopsies, and surgical procedures. Imaging, histology, and the presence or absence of cellular atypia should be correlated to determine the best course of action. Lesions without atypia can be followed up periodically, without the need for surgical procedures, and can be vacuum excised according to the individual case of the patient and its risks. While in cases with atypical lesions, surgical resection is still necessary to be sure of the risk of malignancy. ***Conclusion:*** The follow-up of lesions and early detection of tumors in early stages is essential for better prognosis and a decrease in breast cancer incidence. Each case must be treated individually, and the best management must be done with the multidisciplinary work of the radiologist, pathologist, and breast surgeon aiming at the well-being of the patient and safety as to the risks of the lesion becoming malignant.

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467 - LI-FRAUMENI SYNDROME: A CASE REPORT

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Li-Fraumeni syndrome is a disease with an autosomal dominant inheritance of high penetrance and was originally described in 1969. The definitive diagnosis is based on the identification of a pathogenic variant in the *TP53* gene. Birch and Chompret and classical models were used as the clinical criteria to identify individuals who are the candidates for molecular screening. It is responsible for about 1% of hereditary breast cancers and is related to other neoplasms, the most common sarcomas, leukemias, and adrenal carcinoma. Among the differential diagnoses, we can consider pathogenic variants of BRCA1/BRCA2 and Lynch syndrome. The behavior of cancer is usually similar to that of patients without Li-Fraumeni syndrome except for the age of early onset. Screening for the breast cancer with an annual magnetic resonance is recommended in women from the age of 20, colon cancer with colonoscopy every 2 or 5 years from the age of 25, and osteosarcoma and soft-tissue tumor with full-body resonance at an early age. Interventions are recommended for patients with a family history or individuals with a reported mutation. Mastectomy is generally recommended for women with breast cancer due to the risks of a second primary breast cancer or a second radiation-induced cancer. The risk of contralateral breast cancer in patients with TP53 diagnosed under 35 years of age is approximately 4%–7% per year. In this scenario, we bring a case report of a young female patient with synchronous tumors of maxillary osteosarcoma and breast cancer to study the approach, prevention, and guidance in these cases. N.O.B., 21 years old, single, born in São Paulo, nonparturient, mother's death due to breast cancer at age 36, and sister's death due to neuroblastoma at age 2. At the first medical appointment in June 2021, she complained of the presence of a nodule in her left breast persisting for 2 years and reported a palate lesion present for 1 month and with rapid growth, associated with existing oral cavity deformity. On the breast ultrasound examination performed in June 2021, a solid, hypoechogenic, irregular, microlobulated, nonparallel to skin was revealed, measuring 1.5×1.2×1.3 cm at 10 h of the left breast (BI-RADS classification®: 5). The pathological report from a directed biopsy of the nodule showed an invasive carcinoma of nonspecial histological type, estrogen receptor 80%, progesterone receptor 100%, Her2 negative, and Ki67 60% — clinical staging cT1N0. The examination of her palate lesions reported high histological osteosarcoma — cT1N0M0. Considering the double-tumor diagnosis plus the highly aggressive lesion of the patient's palate, the team chooses to start the treatment with partial maxillectomy and bilateral infrastructure surgery, tracheostomy, and reconstruction with a microsurgical flap of the right fibula in July 2021. Later in October 2021, the patient's treatment was followed by a combination of left adenomastectomy, left sentinel lymph node biopsy, and reconstruction with bilateral prosthesis. Due to family and personal history, she went through genetic testing for pathogenic mutation on the *TP53* gene. Fertility preservation was performed with oocyte freezing. As an adjuvant treatment, it is scheduled for four cycles of docetaxel and cyclophosphamide. As prophylactic measures, the patient is expected for an adenectomy in the contralateral breast and to follow up with clinical examinations twice a year, as well as both mammography and MRI once a year.

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471 - LIVER TRANSPLANTATION IN A FEMALE PATIENT WITH PREVIOUS HISTORY OF BREAST CANCER

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Bile duct injury is a complication of cholecystectomy and may lead the patient to develop secondary biliary cirrhosis (SBC), an irreversible damage to the liver parenchyma caused by the chronic interruption of bile flow. Clinically, cirrhosis manifests when 80% of the liver parenchyma is affected with symptoms like pruritus, jaundice, coagulopathy, and ascites in advanced stages. Liver transplantation is an option of the treatment for SBC, especially when its progression leads to liver failure but there are conditions that strongly contraindicate the procedure, such as an active extrahepatic malignancy. We report a situation in which a patient with breast cancer underwent a liver transplant with good results over 10 years of follow-up. We report a 63-year-old woman, retired, healthy until 2001, when she was submitted for a cholecystectomy. After 15 days, the patient underwent a bile duct reconstruction due to an iatrogenic lesion of the bile duct. After 5 years of asymptomatic, she began to present anorexia, weight loss, jaundice, choluria, and fecal acholia, being diagnosed with SBC. The treatment with endoscopic retrograde cholangiopancreatography and the placement of stents in the bile ducts was initiated with no success. Therefore, she was referred to the liver transplant clinic of the Hospital Universitário Walter Cantídio, placed in Fortaleza-Ceará. On admission, the patient presented a regular general condition, oriented, icteric (++/4), and slimmer. The physical examination showed a symmetric thorax with a palpable lump in the right breast. Cardiac and pulmonary auscultations were normal. The patient had plane, flaccid, painless abdomen, with the presence of incisional hernia with spleen and palpable bowel loops. The laboratory tests showed the following results: creatinine 0.4 mg/dL; international normalized ratio (INR) 1.68; total bilirubin 17.9 mg/dL, being classified as CHILD B MELD 23. The patient also underwent an upper digestive endoscopy that exhibited esophageal varices. The abdominal ultrasound (US) presented signs of chronic liver disease, splenomegaly, and dilated intrahepatic bile ducts. In this case, it was also requested a breast US that revealed a lump on the right breast, measuring 1.5×1.1 cm. Then, she was referred to a mastologist, who requested a mammogram that showed an irregular, spiky, and high-density lump in the upper side quadrant of the right breast, measuring 12 mm. It was requested for a positron emission tomography, whose results excluded the possibility of metastasis. Then, the patient was submitted to a breast quadrantectomy with axillary dissection and removal of five lymph nodes, with freeze biopsy, confirming breast cancer with free margins and sentinel lymph node research. Histopathology of the breast piece revealed grade 2 infiltrating ductal carcinoma of the right breast, measuring 1.8×1.5 cm with angiolymphatic invasion and metastasis to 1 axillary lymph node of 3 mm. Immunohistochemistry examination was positive for estrogen and progesterone receptors, with low Ki-67 and negative HER-2, subtypes of LUMINAL A breast carcinoma. She underwent hormonal treatment, and adjuvant chemotherapy was not indicated. Due to the high risk of mortality associated with SBC, the patient was released by oncology and, in a multidisciplinary meeting with the participation of surgeons, hepatologists, and radiologists, it was decided to include the patient on the liver transplant list, performed 2 months after breast cancer surgery. After 10 years, the patient was monitored by the liver transplant service without recurrence of breast disease and with good liver graft function, using immunosuppressive therapy with everolimus 3.5 mg/day.

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472 - MALE BREAST CANCER AFTER LIVER TRANSPLANTATION: A CASE REPORT

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Male breast cancer (MBC) is an uncommon disease representing only 1% of the total cases. This low incident rate could be due to the low amount of breast tissue and the hormonal differences between men and women. The Surveillance, Epidemiology and End Result (SEER) program reported that the incidence rate of breast cancer was 1.1 per 100,000 men in the mid-1970s and raised to 1.44 per 100,000 men by 2010. There are a lot of characteristics that are common to male and female breast carcinomas, especially given the fact that a lot of the factors that influence malignant changes are similar, but there are also some singularities. In this matter, it is important to understand the existence of risk factors for MBC, particularly the genetic abnormalities, such as BRCA-1 and BRCA-2 mutations. Therefore, a man with this type of predisposition is more likely to develop breast cancer, especially if submitted to an immunosuppressive therapy, normally used to prevent the rejection of transplanted organs. This study aimed to report a case of a patient with chronic alcoholism history, who later developed a liver tumor and breast cancer. This patient reported gynecomastia, which could be related to his health condition, given the fact that liver failure and cirrhosis probably started preventing the inactivation of the estrogens by the liver, causing and stimulating proliferation of the mammary tissue, and increasing the chance of gene mutations. We report a 56-year-old man with a history of smoking, chronic alcoholism, and gynecomastia with 10 years of evolution who was diagnosed with cirrhosis and liver tumor in 2014. He underwent two sessions of a chemoradiotherapy treatment, resulting in reduction of the tumor size as a result. In 2015, the patient had a liver transplant. To prevent organ rejection, it was established an immunosuppressive therapy with tacrolimus 10 mg/day and myfortic 720 mg/day. In 2016, the patient noticed a breast lump and searched for medical assistance. At the appointment, after physical examination, the presence of a 2-×2-cm lump in the right breast was confirmed. A few examinations were requested, such as ultrasonography, which showed a BIRADS4 as a result, chest tomography, and abdominal tomography. The examinations concluded that the lump had a high probability of malignancy. Then, to confirm the suspicion, it was proposed the performance of a fine-needle aspiration of the lump was followed by a core biopsy. The results showed an invasive breast carcinoma positive for estrogen receptors, negative for progesterone receptors, negative for HER-2 oncoprotein, and KI67 5%. Therefore, the molecular classification by immunohistochemistry is a LUMINAL A, which indicates the possibility of a better prognosis. A few days later, the patient was submitted for a radical mastectomy on the right breast. During the surgery, it was also performed a sentinel lymph nodes (SLN) scintigraphy and analysis of the material collected from the right breast. The conclusion expressed positive screening for malignant cells, two lymph nodes compromised by macrometastasis (large focus measuring 1.2 cm with capsular transposition associated) and positive screening for malignant cells suggestive of carcinoma. The tumor, according to a grading system, presented a Scarff-Bloom Richardson modified by Elston and Ellis grade III, with tubular grade 3, nuclear grade 3, and mitotic index 2. It was also identified as focal tumor necrosis, vascular invasion, and perineural invasion. The pathological staging of the tumor was pT2 pN1a (SN+) pMx.

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462 - MALE BREAST CANCER CASE REPORT OF AN INVASIVE CARCINOMA OF A NONSPECIAL AND INVASIVE DUCTAL TYPE 2 IN A MALE PATIENT

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Male breast cancer (MMC) corresponds to 0.5% of cases of malignant neoplasms in men. Among the associated risk factors are black ethnicity, age over 60 years, family history, *BRCA1* and *BRCA2* gene mutations, Klinefelter syndrome, the use of exogenous estrogen, gynecomastia, obesity, and a history of chest radiation. Regarding diagnosis and treatment, the standard trend for female breast cancer is still followed, with few studies in men. We report the case of an 81-year-old black patient with few risk factors exposed in the literature. On physical examination at entry, he presented an exophytic lesion in the right breast and palpable and hardened lymph nodes in the right axillary region. With an established diagnosis of nonspecial type invasive carcinoma and invasive ductal carcinoma without other specifications by previous biopsy, a modified right radical mastectomy was performed with right axillary dissection and according to the pathological examination with pT4b pN1 pMx staging. Thus, as a result of the good evolution of the condition, the patient was discharged 2 days after the surgery to the oncology clinic, in order to monitor the condition.

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502 - METAPLASTIC CARCINOMA OF THE BREAST WITH CHONDROID-TYPE MESENCHYMAL DIFFERENTIATION: A CASE REPORT

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Metaplastic breast carcinoma (MpBC) is a rare and morphologically diverse group of tumors in which a variable proportion or the entire tumor is composed of nonglandular epithelium or mesenchymal cells. It is defined by the histological presence of at least two cellular types, typically epithelial and mesenchymal components. It is composed of ductal, squamous, and/or chondroid, and spindle elements, with squamous cell carcinoma being the most frequent histological subtype. MpBC represents 0.2%–5% of all breast cancers and it is very aggressive. This type of breast cancer is typically triple-negative and is therefore not targetable with hormone therapy or anti-HER2 therapies, leaving only chemotherapeutics for management. MpBCs are known for their aggressive course and poor response to chemotherapy. PDL1/PD1 expression is a predictor of the effectiveness of immune checkpoint therapy in breast cancer. Finally, there are currently no standardized treatment guidelines specifically for MpBC2. A 42-year-old female patient, lactating, who had her only pregnancy at age 40, visited a Mastology Clinic on July 16, 2019, complaining of huge left breast pain. She did not know about her family background, as she was adopted. On physical examination, she had lactating breasts and two palpable lumps of hard consistency, contiguous, and mobile in the upper outer quadrant of the left breast, measuring 3 and 2.5 cm. Mammography described dense breasts, with no other changes and breast ultrasound revealed two solid nodules, measuring 2.7 and 0.6 cm, and a simple cyst measuring 3.4 cm, all of which were contiguous in the upper outer quadrant of the left breast — BIRADS 4. A fine-needle aspiration puncture was performed in the simple cyst, with a histopathological result of poorly differentiated malignant neoplasm with pleomorphic focus, and a core-needle biopsy, with histopathological result of breast tissue infiltrated by pleomorphic malignant neoplasm. The immunohistochemical analysis showed positive for pan cytokeratin AE1/AE3 and negative for CD45, S100, myogenin, and myodio; bringing the conclusion of poorly differentiated carcinoma, suggestive of MpBC. She received neoadjuvant chemotherapy, with doxorubicin + cyclophosphamide, but had rapid local tumor progression. A new ultrasound revealed a heterogeneous and partially delimited mass, measuring 8.8×6.1 cm — BIRADS 6. The patient underwent a left total mastectomy and axillary lymph node dissection on September 23, 2019 — without breast reconstruction, and confirmed invasive metaplastic carcinoma with chondroid-type mesenchymal differentiation, measuring 7 cm, histological grade III, nuclear grade III, associated with solid and cribriform ductal carcinoma in situ, with comedonecrosis — grade III; free surgical margins, but with axillary lymph node metastasis (8/20). The immunohistochemical analysis of the surgical specimen revealed a triple-negative carcinoma: estrogen and progesterone receptors negative, and HER2 negative. The patient had a good postoperative recovery and received radiotherapy (50 Gy). Thereafter, she received adjuvant chemotherapy with capecitabine, within which she evolved with axillary, supraclavicular, and pulmonary lymph node metastasis. The PDL1 marker showed a negative result; therefore, palliative paclitaxel and bevacizumab were prescribed. The patient rapidly evolved with worsening of the lung lesions and was hospitalized on March 9, 2020, with serious dyspnea, progressing to death on March 19, 2020.

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541 - MODIFIED "NO-VERTICAL-SCAR" REDUCTION MAMMOPLASTY: A SAFE ONCOPLASTIC OPTION FOR PATIENTS WITH EXTREMELY LARGE AND PTOTIC BREASTS

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Introduction: It is known that one of the most commonly used breast reduction surgeries is the inverted-T scar (Wise pattern). Numerous reports have established its efficacy in oncoplastic procedures and its aesthetically pleasing shape. However, it has some disadvantages and limitations, such as extensive scar pattern, risk of dehiscence, and its difficulty in reductions in larger and ptotic breasts (removal >800 g per side). As an alternative, the "No-Vertical-Scar" reduction mammoplasty has been proposed in plastic surgery for breasts in which a massive mass excision is required and where marked ptosis exists. Although this technique has not been frequently described and performed in oncoplastic surgeries, it has many advantages in breast cancer patients involving technique, feasibility, and convenience. ***Objective:*** The aim of this study was to describe the critical technical points, adjustments, and safety for oncoplastic surgery of the classic horizontal breast reduction, designated as modified "No-Vertical-Scar" reduction mammoplasty, allowing for the elimination of the vertical scar and axillary approach through the same incision. ***Methods:*** This is a single-center case-series study. We included patients with a breast cancer diagnosis who underwent surgical treatment between 2020 and 2021. Patients were selected for this technique if they had large and ptotic breasts (grade 2 or 3 according to Regnault classification) and a minimum distance of 27 cm between the mid-clavicle and the superior aspect of the areola. Clinical and anatomopathological data were collected. ***Results:*** A total of 25 patients underwent this modified oncoplastic mammoplasty. Preoperative skin markings were made with the patient in the standing position. The proposed new nipple position was determined based on a distance between 18 and 23 cm from the breast midline and the sternal notch. The lower edge of the "apron" flap was then marked at a distance of 5–6 cm below the inferior aspect of the new areola, and it needed to be located above the superior aspect of the original areola. An important step was to delineate the new lateral border of the breast, especially in wide-based breasts. This modified step is crucial to narrow the transverse base of the new breast and to provide a more natural silhouette. The areolated or nonareola pedicle was then selected and designed in accordance with the tumor location. In all patients, axillary surgery (sentinel lymph node biopsy or lymphadenectomy) was performed through the same breast incision. After flap development, lumpectomy, and axillary approach, the superior "apron" flap was then brought down over the remaining breast tissues and sutured in place. A free nipple complex graft or inferiorly pediculated nipple complex was then brought to the new areola site. The volume of removed tissue in each breast varied from 700 to 2,000 g. The complication rate was low (20%, 5 patients) and included minimal dehiscence that resolved in 2–3 weeks (2 patients), nipple epidermolysis (2 patients), and surgical site infection (1 patient). There were no cases of fat necrosis, nipple-areola complex necrosis, or other major complications. Patients were satisfied with the results in 96% of cases. ***Conclusion:*** The modified "No-Vertical-Scar" reduction mammoplasty has been shown to be a safe, easy, and cosmetic alternative in patients with very large and ptotic breasts. It has the advantage of eliminating the vertical scar present in both the inverted-T (Wise pattern) and vertical scar techniques, a low risk of complications and the ability to perform axillary staging through a single incision. It can also result in an "unoperated" look after surgery with good patient satisfaction. Once learned, it is fairly easy to perform, and the results are reproducible and free of major complications.

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501 - MOLECULAR SUBTYPES OF BREAST CANCER IN WOMEN SEEN AT A PUBLIC HOSPITAL IN THE FEDERAL DISTRICT

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Introduction: Breast cancer is the most common neoplasm among women worldwide. The advent of genetic studies and DNA microarrays and their proteins had made it possible to correlate the patterns of gene expression of each type of cancer in different women, associate them with other prognostic factors, and verify the clinical evolution and therapeutic response. The immunohistochemistry (IHC) technique is based on the detection of protein cellular constituents — antigens — and based on the identification and classification of specific cells in the tissue sample. Immunohistochemical panels have been traced to determine breast cancer subtypes, to reproduce gene expression profiles, which have specific treatments. Different molecular subtypes have been established associated with differences in survival and treatment. The four main types in clinical practice are luminal A, luminal B, HER2 overexpression, and triple negative. ***Objective:*** The aim of this study was to trace the epidemiological profile of the molecular subtypes of breast cancer in women treated at the Hospital Regional da Asa Norte-Brasília, DF. ***Methods:*** Cross-sectional, longitudinal, and retrospective study through the analysis of 138 electronic medical records stored on the TrakCare® platform of cases of women diagnosed with breast cancer, with known histological type, and who underwent IHC examination to determine the molecular subtype. The study included women who attended between January 2015 and December 2020, in the Mastology Department of Hospital Regional da Asa Norte (HRAN). ***Results:*** The most common molecular subtype was luminal B, with 65 of the total cases, equivalent to 47.1%. Luminal A subtype was the subtype of 41 cases, equivalent to 29% and being the second most observed subtype. Triple negative was recorded in 21 of the cases, corresponding to 15.2%. The least observed subtype was HER2 overexpression, with 11 cases and 7.9% of the cases. Two participants had local recurrence within less than 2 years of diagnosis, changing from luminal A to luminal B, and luminal B to luminal A. The mean age of the women in the study at the time of diagnosis of breast cancer was 51.5 years, with age extremes of 17 and 86 years. ***Conclusion:*** The most prevalent molecular subtype in this sample studied was luminal B, corroborating other studies carried out in the Brazilian population and diverging from the international literature, in which it is the luminal A subtype. Epidemiological knowledge can guide the elaboration of public policies to improve the quality of care, such as drug planning and neoadjuvant and adjuvant treatments with the best results.

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539 - NEGATIVE IMPACT OF SERUM VITAMIN D DEFICIENCY ON BREAST CANCER SURVIVAL

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Introduction: It is known that breast cancer is the type of cancer that mostly affects women in the world, both in the developing and developed countries, with about 2.3 million new cases in 2020, comprising 25% of all cancers diagnosed in women. Vitamin D concentration has been studied as a risk and prognostic factor in women with breast cancer; its deficiency is common in women with postmenopausal breast cancer, and some evidence suggests that low vitamin D status increases the risk for disease development. The impact of vitamin D at the time of diagnosis on the outcome of patients with breast cancer is less well understood. In view of the increasing number of breast cancer survivors and the high prevalence of vitamin D deficiency among patients with breast cancer, an evaluation of the role of vitamin D in prognosis and survival among patients with breast cancer is essential. ***Objective:*** The aim of this study was to evaluate the association between serum vitamin D (VD) levels at diagnosis and overall survival (OS), disease-free survival (DFS), and cancer-specific survival (CSS) in postmenopausal women treated for breast cancer. Methods: This is a single-center prospective cohort. The study included patients newly diagnosed with invasive breast cancer between 2014 and 2016, aged ≥45 years, and in amenorrhea for ≥12 months, and VD assessment at the time of diagnosis, before any cancer treatment. Patients were classified into three groups according to serum levels of 25-hydroxyvitamin-D [25(OH)D]: sufficient (≥30 ng/mL), insufficient (between 20 and 29 ng/mL), and deficient (<20 ng/mL). Clinical and anatomopathological data were collected. The primary outcome was OS and secondary outcomes were DFS and CSS. Kaplan-Meier curve and Cox regression model were used to assess the association between 25(OH)D levels and OS, DFS, and CSS. Differences in survival were evaluated by hazard ratios (HRs). The study was approved by the Ethics Committee (CAAE: 71399117.2.0000.5411). ***Results:*** The study included 192 women with a mean age of 61.3±9.6 years at diagnosis, mean 25(OH)D levels of 25.8 ng/mL (ranging from 12.0 to 59.2 ng/mL), and follow-up period between 54 and 78 months. Sufficient VD levels were detected in 65 patients (33.9%), insufficient in 92 (47.9%), and deficient in 35 (18.2%). Patients with 25(OH)D insufficiency and deficiency had a larger proportion of high-grade tumors, locally advanced and with distant metastasis, positive axillary lymph nodes, negative estrogen receptors (ER), and progesterone receptors (PR), and higher Ki67 index ($p<0.05$). The mean OS time was 54.4±20.2 months (range 9–78 months), and 51 patients (26.6%) died during the study period. Patients with VD deficiency and insufficiency at diagnosis had significantly lower OS, DFS, and CSS compared to patients with sufficient values ($p<0.0001$). After the adjustment for clinical and tumoral prognostic factors, patients with serum 25(OH)D levels considered deficient at the time of diagnosis had a significantly higher risk of global death (HR=4.65, 95%CI 1.65–13.12), higher risk of disease recurrence (HR=6.87, 95%CI 2.35–21.18), and higher risk of death from the disease (HR=5.91, 95%CI 1.98–17.60) than the group with sufficient 25(OH)D levels.

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533 - NIPPLE MINIMUM PAGET DISEASE: A CASE REPORT

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Paget's disease (PD) of the nipple is a rare cancer that affects the nipple and areola and accounts for between 0.4% and 5% of breast cancers. It was first described in 1877 by the English physician Sir James Paget. It affects women between 60 and 70 years of age and very rarely affects men. In PD, the skin on the nipple and areola becomes thicker. Clinical presentations are usually erythema, desquamation, or eczematous changes in the nipple, features that can progressively progress to erosion, overt destruction, and ulceration of the papilla. Bloody papillary discharge, itching, nipple retraction, and/or a palpable mass may be associated. Cancer cells, called Paget cells, are malignant, large, with clear, abundant cytoplasm and nuclei with prominent nucleoli. Like glandular cells, they appear either as isolated cell in the epidermal tissue or as groups of cells. Most women diagnosed with PD also have ductal adenocarcinoma, either in situ or invasive. The prevalence is 67–100% of cases, which gives a worse prognosis to the patient. Patients with Paget-associated invasive breast disease have lower hormone receptor expression, greater lymph node involvement, and higher human epidermal growth factor receptor type 2 (HER2) expression. An 82-year-old woman sought the mastology outpatient clinic for a follow-up of carcinoma in situ in the right breast 2 years ago, having been submitted to quadrantectomy and hormone therapy with tamoxifen, with no signs of recurrence. She complained of an exudative pruritic lesion on the left nipple that had started 6 months ago. She reported that the lesion started with itching and burning, associated with a spontaneous discharge of serous secretion from the itchy surface of the breast, which improved with the use of "talcum powder." On physical examination, the presence of a discrete reddened area with a diameter of 3 mm, eczematous, with bloody areas interspersed with serous secretion was observed on the left nipple. Areola lesions and palpable nodules in the left breast were absent. She underwent mammography, which showed symmetrical breasts with fat-replaced parenchyma, absence of nodules, presence of isolated calcifications, and grouping in the superior lateral region of the left breast, categorized as BIRADS II. On ultrasound, a nodule with angled edges, measuring 5×4 mm in the superomedial quadrant of the left breast, which showed nodular enhancement and persistent kinetic curve on magnetic resonance imaging of the breasts. The histopathological study diagnosed moderately differentiated left breast ductal carcinoma, associated with a high-grade solid intraductal carcinoma and PD of the nipple, without the involvement of the areola. Immunohistochemistry revealed the absence of estrogen and progesterone hormone receptors and HER-2 overexpression in both histological types. She underwent mastectomy with sentinel lymph node biopsy that was free of neoplasia. Oncological follow-up with no signs of recurrence. PD, if left untreated, extends to the areola and other regions of the breast. Therefore, clinical suspicion from the first physical examination allows an early diagnosis of extreme importance, which improves the prognosis and allows less aggressive treatments.

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531 - NODULAR FASCIITIS OF THE BREAST: A CASE REPORT

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Nodular fasciitis (NF) is a benign proliferative lesion of fibroblasts and myofibroblasts, first described by Kornwaler et al in 1955. It can occur anywhere in the body, but it rarely happens in the breast. The precise mechanism is not well understood, but it is believed to develop in response to injury, although a history of trauma was described in only 10% of patients. The pathogenesis of NF is also related to a molecular modification as 74%–100% of cases harbor a gene rearrangement involving Ubiquitin-specific Peptidase 6 (USP6). NF commonly affects adults between 20 and 40 years of age, in equal proportion for men and women. It typically presents as a solitary lesion, less than 2 cm in diameter within the subcutaneous tissue, with rapid growth that may be painful or tender. On imaging, NF can mimic malignant lesions, appearing in most cases as a solid mass with a nonuniform shape and speculation. NF is rarely diagnosed by fine-needle aspiration (FNA) cytology or core-needle biopsy, because usually not all of the cells are properly represented or it shows only spindle cells, without more information to confirm the diagnosis. Consequently, commonly it is required to have an excisional biopsy for histologic confirmation. Histopathologically, NF is characterized by a cellular proliferation of mitotically active myofibroblastic/fibroblastic spindle cells that express smooth muscle actin (SMA). An immunohistochemical panel is often necessary for differential diagnosis, including p63, SMA, and CD34. In cases where the diagnosis is still not defined, fluorescence in situ hybridization may be helpful to detect USP6 rearrangement. The differential diagnosis includes the spindle cell lesions, like spindle cell carcinoma and sarcoma among malignant lesions, and fibromatosis and myofibroblastoma among benign lesions. NF has a self-limiting nature and in some cases, spontaneous regression was even described. For that reason, some authors suggest a conservative management with careful observation when NF is definitively diagnosed by FNA or core-needle biopsy. For cases that need a surgical excision for diagnosis, this procedure is already diagnostic and curative. Recurrence after spontaneous resolution or surgical excision has not been reported. A 43-year-old woman visited a breast surgeon with a self-detected painless palpable mass in the left breast of 3 months, without trauma history or systemic symptoms. She had no comorbidities or family history. On examination, there was a firm 4-cm mass in the upper inner quadrant of the left breast, near the parasternal region. The mammogram revealed just bilateral benign calcifications, designated BIRADS 2. Ultrasound demonstrated a 4×4×2.7 cm hypoechoic, irregular, and spiculated mass at 10:00 near the parasternal region and no cleavage plan to pectoralis major muscle, designated as BIRADS 5. There was no atypical lymph node. An ultrasound-guided core biopsy of the suspect nodule was obtained, which showed spindle cells, without atypia. Following this indeterminate finding, the patient underwent excisional biopsy, which histopathologic concluded spindle cells, without atypia, with an immunohistochemical panel showing negative beta-catenin, negative CD34, and positive SMA, suggesting the NF diagnosis. The patient is still in observation, with no evidence of recurrence since the surgical procedure.

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476 - ONCOLOGICAL OUTCOME IN PATIENTS SUBMITTED TO NIPPLE-AREOLA COMPLEX SPARING MASTECTOMY AFTER NEODADJUVANT CHEMOTHERAPY

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Introduction: Breast cancer is the most frequent cancer among women in Brazil and worldwide, with the exception of nonmelanoma skin tumors. The nipple-areola complex (NAC)-sparing mastectomy was developed with the aim of improving aesthetic results and psychological impact on patients. The oncological safety of this technique has been well established in early-stage tumors and risk-reducing surgery; however, it is still uncertain in patients undergoing neoadjuvant chemotherapy who are often at a higher risk for relapse. ***Objectives:*** This study aims to analyze the oncologic outcome in a retrospective cohort of patients that were submitted to mastectomy with preservation of the NAC after neoadjuvant chemotherapy for breast cancer treatment, and to correlate clinicopathological and magnetic resonance (MRI) variables to NAC local relapse. ***Methods:*** All the patients who were submitted to nipple-sparing mastectomy after neoadjuvant chemotherapy at the Centro de Doenças de Mama de Curitiba, in the period from January 1, 2012, to December 31, 2019, for breast cancer curative treatment were selected. Patients who had incomplete data in their medical records or who were lost to follow-up were excluded. Local and systemic recurrence rates and clinicopathological and MRI variables associated with the oncological outcome were analyzed. To evaluate factors associated with the incidence of recurrence, the Fine and Gray models were adjusted, considering death as a competitive risk. The estimated association measure was the subdistribution hazard ratio (SHR), for which the 95% confidence interval was presented. After adjusting the models, the significance of each variable was analyzed using the Wald test. Values of $p<0.05$ indicated statistical significance. ***Results:*** In all, 134 patients were included, with a mean age of 42.3±10.1 (23–68) years in an average follow-up time of 44.5 (4.2–148) months. The locoregional recurrence rate in the sample was 9.7% (13 cases) in a median time of 17.8 (4.5–40) months; in 5 of these 13 cases, the local relapse involved the nipple-areolar complex corresponding to 3.7% of the sample in a median time of 24.2 (11.7–40.1) months. The systemic recurrence rate was 11.9% (16 cases) in a median time of 20.9 (2.7–130) months. There were 12 deaths (9%) in this sample, in a median follow-up time of 37.8 (4.6–98.4) months. Stage 3 tumors (p=0.016, SHR) and Ki67 index (p=0.004) were significantly associated with local and/or systemic recurrence risk. There was found no association between the NAC recurrence and multicentricity/multifocality presentation (p=0.716; SHR 1.39, 95%CI 0.23–8.30), tumor size on prechemotherapy MRI (p=0.934; SHR 1.00, 95%CI 0.96–1.05), or the distance from the tumor to the NAC on pre (p=0.866; SHR 0.99, 95%CI 0.92–1.08) or pos chemotherapy MRI (p=0.205; SHR 1.03, 95%CI 0.98–1.09). Adjuvant radiotherapy was also a nonsignificant factor. When analyzing immunohistochemical parameters, the Ki67 index was the only variable that was correlated (p=0.018; SHR 1.04, 95%CI 1.01–1.08) to the locoregional failure in the NAC. ***Conclusion:*** Locoregional relapse rate in NAC was within acceptable limits for performing nipple-sparing mastectomy in patients submitted to neoadjuvant chemotherapy in this sample. More studies are needed to confirm the safety of this technique, especially in the stage 3 subgroup of patients.

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549 - ONCOPLASTICS AS A SURGICAL APPROACH FOR THE MAINTENANCE OF SELF-ESTEEM IN WOMEN WITH BREAST CANCER

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Introduction: The diagnosis of breast cancer brings with it various feelings and sensations, especially because it affects one of the most striking symbols of femininity. With this, oncoplastic surgery appears nowadays with the intention of offering the best aesthetic result without harming the oncological result. This surgical approach aims at keeping the aesthetics of the breasts preserved, in order to contribute to the maintenance of the self-esteem of women affected by cancer. Various techniques are recognized to achieve the desired outcome. ***Objective:*** This study aims to describe oncoplastics as a surgical approach to the breasts that contributes to the maintenance of self-esteem in women affected by cancer. ***Methods:*** This is a qualitative literature review, based on the analysis of studies available in the SciELO and PubMed databases, as well as searches on the Google Scholar platform. The descriptors used were the terms "Oncoplastics," "Breast cancer," and "Self-esteem." Aspects such as the patients' view about the approach, the physicians' opinion about the benefit of oncoplastic surgery in each case, and the possible complications resulting from the surgical act were taken into consideration. The studies selected were those that responded to the objective, published between 2017 and 2022, and availability in Portuguese or English. ***Results:*** Factors such as age, BMI, tumor size and location, breast size, and the application of adjuvant treatment can determine the final aesthetic result. However, most of the selected studies demonstrate a good aesthetic result, which corresponds to 90% of the patients. It was observed that younger patients and those with better socioeconomic levels were more satisfied with the results. However, the complications of oncoplastic surgery are within the acceptable range, and these are mainly delayed wound healing, fat tissue necrosis, and infections, which, in turn, are almost totally resolved. ***Conclusion:*** Oncoplastics in mastology arise with the intention of benefiting the preservation of aesthetics and well-being of female patients diagnosed with cancer. Since its acceptance by specialists, the various techniques developed in this surgical approach ensure not only greater safety for patients but also better results, directly influencing their self-esteem.

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491 - EPIDEMIOLOGICAL PROFILE OF WOMEN WITH BREAST CANCER SUBMITTED TO BREAST RECONSTRUCTION IN A TERTIARY HOSPITAL IN PERNAMBUCO

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Introduction: Breast reconstruction is a right guaranteed by the public health system to patients submitted for mastectomy. However, some epidemiological factors delay the performance of this procedure. ***Objectives:*** This study aims to understand the epidemiological profile and characteristics of women with breast cancer submitted for immediate or late breast reconstruction in a reference hospital in the state of Pernambuco. ***Methods:*** This retrospective, observational descriptive study analyzed 400 patients treated in a reference hospital for cancer treatment and breast reconstruction from 2010 to 2020. Data were collected through a sociodemographic questionnaire and the clinical-surgical history of patients with breast carcinoma, later analyzed by the SPSS software, version 18, with percentages of the categories assessed by the χ^2 test, considering a 5% significance level. The comparison of analyses was significant ($p<0.005$), showing that the profile described is the most frequent in the group of patients evaluated. ***Results:*** The sample consisted of 400 patients, obtained in a 10-year period, who underwent immediate or late breast reconstruction. Most of them had a mean age between 46 and 59 years (45.3%), were multiracial (61.1%), married (79.1%), with schooling up to high school (60.7%), were domestic workers (45%), nonsmokers (84.9%), and did not consume alcohol (94.9%). The ductal histological type represented 85% of our patients, and the clinical stages I and II were the most prevalent (69%). The molecular subtype luminal A was found in 60% of the sample, followed by luminal B in 16%, triple negative in 15%, and HER-2 in 9%; 70.3% of the patients underwent immediate reconstruction after mastectomy in our service. ***Conclusion:*** The findings suggest that patients with high educational levels are more prone to undergo immediate breast reconstruction. They also indicate that socioeconomic status significantly influences breast reconstruction rates after mastectomy, demonstrating a large increase in breast reconstruction in the public system.

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459 - POSITIVE PREDICTIVE VALUES OF THE BREAST IMAGING REPORTING AND DATA SYSTEM (BI-RADS®) CATEGORIES 4, 5, AND 0 IN MAMMOGRAPHY AND ULTRASOUND EXAMINATIONS: ANALYSIS BASED ON LOCAL CLINICAL PRACTICE

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Introduction: The American College of Radiology (ACR) BI-RADS specifies different approaches to calculating positive predictive values (PPVs) of screening/diagnostic tests. The biopsy yield of malignancy based on tissue diagnosis (PPV3) is considered the most accurate indicator of cancer status. Nevertheless, in routine clinical practice, Brazilian physicians frequently take conduct grounded only on cytopathology and clinical follow-up, which might introduce bias when interpreting BI-RADS-derived metrics of performance. ***Objectives:*** This study aimed to analyze the PPV of BI-RADS categories 4 and 5 in mammography and ultrasound studies in a local reference outpatient clinic. The results from inconclusive examinations (category 0) and the PPV of BI-RADS 4 subcategories were also investigated. ***Methods:*** Retrospective analysis of the BI-RADS classification applied to mammography and ultrasound studies performed during October (Breast Awareness Cancer Month) from 2009 to 2013. We calculated the PPV for BI-RADS categories 4 (also for subcategories 4A, 4B, and 4C), 5, and 0, considering not only biopsies performed, but also cytopathologic studies and follow-up as a composite outcome measure. χ^2 and other pertinent statistical tests were used on SPSS, version 20. ***Results:*** After exclusion criteria were applied, the study sample was composed of 734 women with a mean age of 55.74 years (SD=12.59). Of the participants, 469 (63.9%) had both studies, 136 (18.5%) had only mammography, and 129 (17.6%) exclusively had ultrasound. The PPV for category 4 in mammography was 29.2% (38/130), for category 5 was 100.0% (6/6), and 2.3% for category 0 (9/391). BI-RADS 4 in ultrasound had a PPV of 13.5% (35/260), 100% for BI-RADS 5 (6/6), and 20% (1/5) when BI-RADS 0 was used. The PPV for each subcategory of suspicious lesions found on mammography was 13.6% (11/81) for BI-RADS 4A, 40% (10/25) for 4B, 83.3% (15/18) for 4C, and 4.6% (6/130) of the studies were not subcategorized. On ultrasound, the PPV for subcategory 4A was 4.7% (8/172), 42.9% (3/7) for 4B, 100% for 4C (12/12), and 26.5% (69/260) examinations were not stratified. The different subcategories for both methods showed a statistically significant association with malignant outcomes using the χ^2 test ($p<0.005$). ***Conclusion:*** Most of the PPVs observed were similar to the ACR BI-RADS benchmarks and other values reported in the scientific literature, even considering the broader outcome measure studied (tissue sampling, cytopathology, and follow-up). Nevertheless, some of the variations observed merit further study, since we employed an unusual composite outcome measure that might partially explain our findings and is more closely related to current clinical practice in Brazil.

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475 - POST-NEOADJUVANT CHEMOTHERAPY RECURRENCE IN PATIENTS WITH NODE-POSITIVE BREAST CANCER: INFLUENCE OF DIFFERENT AXILLARY APPROACHES

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Introduction: Breast cancer treatment has drastically changed in recent decades due to a better understanding of the biology of this disease as well as an increase in diagnostic and therapeutic approaches. Axillary dissection (AD) persists as the standard treatment for axillary nodes after neoadjuvant chemotherapy (NAC); however, sentinel lymph node biopsy (SLNB) has become a promising alternative since it could spare the patient from lymphadenectomy-associated morbidity in axillary tumor regression following NAC. ***Objective:*** This study aimed to compare the recurrence rates between AD and SLNB in initially node-positive patients treated with NAC. ***Methods:*** A retrospective review was conducted for medical records of node-positive breast cancer patients treated with NAC at our institution between 2010 and 2016. Clinicopathological and surgical variables including the types of axillary approach were collected. The SLNB was performed in those who converted to node negative after NAC using technetium colloid, blue dye, or both. AD was performed in positive SLNB, missing SLNB, or persistent clinically node-positive. The association of these variables with axillary or systemic recurrences was investigated using the χ^2 test. ***Results:*** The study included 131 patients, being most patients (71%) diagnosed with stage III disease. NAC produced a pathologic complete response in 22.1% of the patients. Axillary recurrence was observed in 4 (3.1%) patients (including 1 patient who underwent SLNB and 3 who underwent AD), while systemic recurrence was occurred in 37 (28.2%) patients. Regarding the axillary approach, 26% of the patients underwent SLNB, 58% AD, and 21% both techniques. A technetium-radiolabeled colloid and blue dye were both used as SLNB markers in 77.9% of the patients. The sentinel lymph node identification rate was 91.5% and the mean number of lymph nodes removed was 3 in SLNB. None of the investigated factors were significantly associated with axillary recurrence. Patients who underwent AD had higher systemic recurrence rates than those who only underwent SLNB. ***Conclusion:*** SLNB is a promising intervention for node-positive patients who convert to clinically node-negative status following NAC, since their recurrence rate was not higher than that on patients who underwent AD.

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466 - PREDICTIVE FACTORS OF PATHOLOGIC COMPLETE RESPONSE AFTER NEOADJUVANT CHEMOTHERAPY IN BREAST CANCER

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Introduction: Breast cancer is a cancer that most affects women around the world. The neoadjuvant chemotherapy, nowadays, has been extended to the initial cases in order to de-escalate treatments, reducing the surgical aggressiveness of the breast and axilla. Pathologic complete response (pCR) is the major desired outcome, aiming to improve the overall and disease-free survival in a subgroup. Which factors would be correlated with pCR in our population and could help reduce the surgical extension in a SUS service in northeastern Brazil? ***Objective:*** The aim of this study is to find predictive factors of pCR after neoadjuvant chemotherapy, a subject that is still very controversial in the literature. ***Methods:*** This is an observational, analytical, longitudinal study carried out at the Brazilian Public Health System oncology service in the state of Sergipe with the participation of patients diagnosed with breast cancer who would undergo neoadjuvant chemotherapy between June 2019 and June 2020. Patients with a histological diagnosis of breast cancer who were admitted to the service with indication for neoadjuvant therapy were included. Patients with a histological diagnosis of carcinoma-type breast cancer, of any age group, from stages I to III were included. Molecular subtypes were determined by immunohistochemical evaluation of core-needle biopsy material. After the treatment, the patients underwent mastectomy or breast-conserving surgery, depending on the indication of the attending physician at the service, without intervention by the researcher. For the treatment of the axilla, sentinel lymph node dissection or axillary dissection was performed. RECIST (response evaluation criteria for solid tumors) criteria were used to categorize the response. The hypothesis of independence between categorical variables was tested using Pearson's χ^2 or Fisher's exact test. The hypothesis of the adherence of continuous variables to the normal distribution was tested using the Shapiro-Wilks test. Once this hypothesis was rejected, the hypothesis of equality of medians was tested using the Mann-Whitney U test. The significance level adopted was 5% and the software used was the R Core Team 2021 (version 4.1.0). ***Results:*** Data from 69 patients were collected during the study period. Of the patients analyzed prospectively, 17 achieved a pathological complete response (25.37%). The median age of these patients was 49 years. Despite a complete pathological response, 64.7% of these patients underwent mastectomy and 58.8% underwent axillary dissection. The median number of lymph nodes dissected in patients with rPC was 5 and in patients without rPC, it was 14.5. The median number of lymph nodes involved was 0.5 in patients who did not achieve rPC (p=0.006). Stages I and II were present in 76.5% of cases who achieved a complete pathological response. Among patients with a complete pathological response, 52.9% of cases were triple-negative tumors, 29.4% overexpressed HER2, and 17.6% Luminal (p=0.033). There were 11.8% of patients with metastases and complete pathological responses. Of the patients with rPC, 76.5% had a clinically negative axilla before chemotherapy and only 28.6% of the patients who did not achieve rPC (p=0.001) had a clinically negative axilla. Tumor staging before chemotherapy was initial (I and II) in patients with RPC in 76.5% and in those without rPC in 46% (p=0.04). In all, 76.5% of patients with rPC were from the capital and patients without rPC 60% were from the interior of the state (p=0.01). The median Ki67 of 50 was compared to the median Ki67 of 30 in patients without rPC (p=0.05). In a multivariate analysis, we observed the origin of the state capital and the initial clinically uncompromised axilla as independent predictors for pCR. ***Conclusion:*** The absence of prechemotherapy lymph node involvement and the origin of the capital proved to be independent predictors of complete pathological response to neoadjuvant chemotherapy in our study.

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552 - PROBABILITY OF LOCAL RECURRENCE ESTIMATED BY A MODIFIED MSKCC DCIS NOMOGRAM IN PATIENTS WITH DUCTAL CARCINOMA IN SITU TREATED WITH BREAST-CONSERVING SURGERY: A NOVEL TOOL FOR RADIOTHERAPY DECISION-MAKING

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Introduction: Radiation therapy (RT) plays an important role in the management of patients with ductal carcinoma in situ (DCIS) of the breast, treated by breast-conserving surgery (BCS). RT significantly reduces the risk of local recurrences (LRs) in unselected patients. Efforts are being made, currently, to de-escalate the RT in this scenario with individualized decision-making. Several biomarkers were developed to predict the probability of LR and aid a tailored clinical decision. ***Objective:*** The aim of this study was to assess the potential of a modified MSKCC DCIS nomogram to forecast LR after BCS for DCIS patients and assist physicians to recommend RT. ***Methods:*** Women with DCIS undergoing BCS, with clear surgical margins and external RT, were enrolled in the study. The MSKCC DCIS Nomogram was modified with the omission of the RT parameter. Patients were considered at high risk for LR when the 10-year probability of LR was >10%. Receiver operating characteristic curves were drawn and the areas under the curves (AUCs) of 10-year follow-up evaluation were calculated. ***Results:*** In all, 110 women were studied. Eight patients had LR (7.3%), five being invasives (62.5%) and three in situ (37.5%). LRs occurred in 6.2% and 12.7% of patients who were classified as high risk by the original and by the modified nomogram, respectively. The AUCs were compared. The modified MSKCC DCIS nomogram is warranted for the 10-year risk LR prediction, and it may reinforce RT indication. ***Conclusion:*** The modified MSKCC DCIS nomogram may identify patients with DCIS treated by BCS with a high probability of LR and, therefore, may individualize RT recommendation.

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554 - QUALITY OF LIFE OF YOUNG WOMEN WITH BREAST CANCER IN A REFERENCE HOSPITAL IN PARAÍBA

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Introduction: Breast cancer is the main cancer in women in Brazil and worldwide, it and is the leading cause of death among women in Brazil. Although it is more common in women over 40 years, when it occurs in younger women, it generally has a worse prognosis, thus leading to more aggressive treatments and generating more long-term sequelae. ***Objective:*** The aim of this research was to analyze the quality of life of women breast cancer survivors under 40 years of age. ***Methods:*** This is an observational, cross-sectional study that was carried out at the Hospital Napoleão Laureano, which is the reference for the treatment of breast cancer in Paraíba. The project was submitted to the Research Ethics Committee of the Centro de Ciências Médicas of the Universidade Federal da Paraíba, and the patients signed an informed consent form. Data collection was performed between September 2020 and February 2021. We had to conduct most of the interviews by telephone, because the COVID-19 pandemic decreased the flow of patients to the outpatient clinic. ***Results:*** In this time period, we identified 76 patients who fit the inclusion criteria for the survey, and from these, we obtained 47 responses to the quality of life questionnaire. Among those who answered the survey, only four had not yet had any surgical procedure on their breasts. Of the 43 women who had undergone surgery, most still suffer from pain (27.6%) or discomfort (63.8%) in the area of the breasts and upper limbs, and 63.8% also feel a decrease in the strength of this homolateral upper limb. This is very important data, because pain is responsible for a great decrease in quality of life, so much so that chronic pain can lead to symptoms of depression in breast cancer survivors. In the second part of the questionnaire, we asked about body image, since the breast region is generally a very important area of women's bodies. More than 70% of the interviewees feel beautiful and satisfied with their sex life; often related to the support they are receiving, be it from family, friends, health professionals, or even from social media. Even so, they have noticed a drop in libido, which is a common side effect of chemotherapy, a topic not usually addressed in medical consultations. They were asked about their desire to have children, since many cancer treatments can lead to premature ovarian failure, early menopause, and infertility; 36% of them said that the diagnosis changed their desire to get pregnant, demonstrating that the issue of fertility is not being properly addressed among these women, since fertility preservation options are not even available in the Brazilian public health service. Another issue addressed was the socioeconomic issues related to the diagnosis and treatment of the disease, considering that in Brazil, women are responsible for the family income in more than half of the households. Although cancer treatment in Brazil is free of charge, 68% of the women had to stop work or take a medical leave, and about 78% of them said that their financial conditions worsened during the treatment, increasing their worries in this already extremely stressful period. ***Conclusion:*** The evolution of therapies in the treatment of breast cancer has allowed a considerable survival rate for this disease. Thus, the management of the sequelae of the disease and treatment, and the quality of life of these women survivors, also becomes the responsibility of the health team, so that studies on this are fundamental to provide better assistance.

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473 - RECURRENCE POST-NEOADJUVANT THERAPY IN PATIENTS WITH NODE-POSITIVE BREAST CANCER

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Introduction: Breast cancer treatment has drastically changed in recent decades due to a better understanding of the biology of this disease as well as an increase in diagnostic and therapeutic approaches. ***Objective:*** We aimed to identify prognostic factors related to recurrence among patients with node-positive breast cancer who underwent neoadjuvant chemotherapy (NAC). ***Methods:*** We conducted a retrospective review of medical records of node-positive breast cancer patients treated with NAC at our institution between 2010 and 2016. Clinicopathological variables (such as age, menopausal status, body mass index, tumor type, histological subtype, clinical and pathologic staging, immunohistochemical profile, type of surgical treatment, and pathologic response to NAC) and its association with axillary or systemic recurrences were investigated using the χ^2 test. ***Results:*** A total of 131 patients were investigated with a mean age of 49 years. Most patients (36.6%) presented luminal B subtype, followed by 28.2% with triple negative and 20.6% with HER2 subtype. Lymphovascular invasion was observed in 42% of the sample, and the median initial breast tumor size was 35 mm. After NAC, 22.1% of the patients achieved a pathological complete response and tumor size was reduced to a median of 15 mm. Axillary recurrence was observed in 3.1% of the patients, while systemic recurrence occurred in 28.2% of the patients. None of the investigated clinicopathological variables were significantly associated with axillary recurrence. However, systemic recurrence was associated with poor response to NAC and the presence of lymphovascular invasion on pathology analysis. ***Conclusion:*** NAC response and lymphovascular invasion are important predictors of breast cancer systemic recurrence. Interestingly, histological subtypes were not associated with increased axillary or systemic recurrence rates.

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495 - RECURRENT PHYLLODES TUMOR MALIGNANCY: A CASE REPORT

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Fibroepithelial tumors of the breast are part of a heterogeneous group of biphasic neoplasms, which include common fibroadenomas (FA) and phyllodes tumors (PTs). The PT is a rare fibroepithelial tumor that is histologically divided into three grades: benign, malignant, or borderline. Although only about 10% of these tumors are malignant, even benign tumors are prone to local recurrence and can become very large in size. The standard management of PT is surgical excision with negative surgical margins, due to the propensity for local recurrence. Therefore, the report about this type of tumor with multiple recurrences and malignization in the same person is important for the literature. A female patient, 30 years old, without comorbidities, with an obstetrical history of an abortion due to anembryonic egg and with a previous oncological history of four left breast segmental resections for the removal of solid nodules, confirmed anatomopathologically as borderline PT, benign PT, FA, and benign PT, respectively, in the years 2017, 2018, 2018, and 2019, was observed. No intercurrences were noted in the follow-up with a mastologist who found, in the physical examination, the presence of nodules and a palpable left breast, which caused discomfort when lying in the left decubitus position, with painless, nonsecretive, without palpable lymph nodes, and with accelerated growth. Ultrasonography revealed the presence of simple cysts in the right breast and two solid nodules BI-RADS 4 compatible with the diagnostic hypothesis of PT; therefore, surgical resection was indicated. However, with the increase in the volume of the nodules, it was not possible to obtain free margins and a simple mastectomy was chosen. On November 11, 2021, a left mastectomy was performed with partial resection of the pectoralis major muscle due to an intraoperative infiltrative lesion and immediate breast reconstruction with the placement of silicone prosthesis, without complications. In the anatomopathological examination, a malignant PT was identified with an infiltrative border pattern and the presence of neoplastic infiltration in the underlying skeletal muscle tissue. On December 23, 2021, the oncologist informed that the CT-PET performed days before denoted the absence of sites suggestive of a neoplastic process and the presence of a probable inflammatory scarring process in the left breast around the breast prosthesis. She is currently being followed up by the mastologist and the oncologist, through imaging examinations together with the clinical consultation, without the use of chemotherapies.

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504 - SPONTANEOUS REGRESSION OF MALIGNANT BREAST NEOPLASM IN A PATIENT WITH HIGH LEVELS OF IMMUNOGLOBULIN E

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M.C.V., 54 years old, born in Presidente Bernardes, Minas Gerais, was admitted on September 10, 2018, with a palpable abnormality in the right breast, a 15-mm heterogeneous lobular nodule in the junction of the right upper quadrants (BI-RADS 5). Mammography showed focal asymmetry in the same location (BI-RADS 0). She was submitted to ultrasound-guided core-needle biopsy with a result of invasive ductal carcinoma — grade 3. The immunohistochemical pattern revealed positive estrogen and progesterone receptors, C-ERB B2 with a +2 score, and 20% Ki67 positive. The FISH test was negative. The patient refused treatment, returning to the facility on August 14, 2019, with a normal physical examination. Ultrasound showed an 8 mm lesion in the junction of the right upper quadrants (BI-RADS 6), while mammography indicated focal asymmetry regression. A staging study was performed with chest x-ray, abdominal ultrasound, and normal bone scan. Laboratory study was normal, except for a high total IgE level of 4,290. She underwent segmental resection and sentinel lymph node biopsy in the right breast on August 17, 2019, at the Hospital São Vicente de Paula, Ubá/Minas Gerais, with the histological result revealing a 9-mm invasive lobular carcinoma, free margins, and negative sentinel lymph node. The treatment indicated was radiotherapy and the use of 20 mg tamoxifen for 5 years. We conclude that there is something different, possibly associated with the high IgE level, which we will continue to study to understand.

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484 - RELEVANT PREDICTORS OF MALIGNANCY BEYOND THE ACR BI-RADS® ATLAS FOR ULTRASOUND

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Introduction: The ACR BI-RADS® ATLAS for ultrasound (US) is an excellent tool used to categorize breast masses and classify the masses into seven categories according to the risk of malignancy. However, it is well accepted that some clinical characteristics of the patients and functional characteristics of the masses can modify the risk of malignancy. ***Objective:*** This study aims to evaluate possible relevant predictors of malignancy in addition to the ACR BI-RADS® for US categorization. ***Methods:*** This is a cross-sectional study that included patients with breast masses who were submitted to US-guided core biopsy in our division, from January 2015 to December 2021. Patients included had masses measuring up to 3 cm in the greatest diameter. We evaluated all masses with Doppler sonography and obtained the resistance index (RI) of the vessel through spectral analysis, when penetrating vessels were identified. We retrospectively collected the clinical data from medical records. The study was approved by the Institutional Ethics Committee. ***Results:*** We included 924 patients with suspicious breast masses measuring up to 3 cm that underwent US-guided core biopsy. The mean age was 53.4 years and the median size of the mass was 1.7 cm. We had 621 palpable masses and 295 nonpalpable lesions. The Doppler analysis revealed penetrating vessels in 560 lesions and no penetrating vessels in 364. The median RI in the spectral analysis was 0.79. All masses were classified according to the ACR BI-RADS® ATLAS for the US, and the risk of malignancy observed in each category agrees with data from the literature. We compared the characteristics of the benign and malignant masses and their clinical and functional characteristics. Moreover, the presence of penetrating vessels in the mass in the Doppler analysis conferred a higher risk of malignancy for the lesions initially classified in subcategories 4a, 4b, and 4c based on the ACR BI-RADS® descriptors. To define the best RI cutoff point, we used the receiver operating characteristic curve. Using the cutoff point of 0.71, we achieved a sensitivity of 0.84 and specificity of 0.61; the area under the curve was 0.75. The risk of malignancy of lesions 4a that had internal vascularization and high RI (>0.71) was 25%, which is much higher than expected for the category. This was also observed in lesions 4b (70% risk of malignancy in the presence of vessels with high resistance). ***Conclusion:*** Clinical characteristics influence the risk of malignancy of the breast masses and functional characteristics of the masses, such as the presence of blood vessels in the Doppler analysis, especially vessels with high resistance can better define the risk of malignancy than the ultrasonographic characteristics alone.

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507 - ROSAI-DORFMAN DISEASE OF THE BREAST: A CASE REPORT

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Rosai-Dorfman disease (RDD) is a rare histiocytic disorder that was first described by Destombes in 1965 and subsequently classified by Rosai and Dorfman in 1969 as a distinct clinical and pathological condition. It is a self-limiting disease process characterized by a non-Langerhans cell benign proliferation that usually involves the lymph nodes, but can affect extranodal sites. Classic RDD most commonly presents as massive bilateral painless cervical lymphadenopathy, with associated fever and loss of weight in children and young adults. Despite the predilection for the head and neck lymph nodes, RDD may present extranodal case in 43% of cases and in rare instances (around 23% of extranodal cases) only extranodal involvement can be described. The more common extranodal sites include the skin, nasal cavity, bone, orbital tissue, and the central nervous system. RDD involving the breast tissue is extremely rare, with fewer than 50 reported cases and it is important to recognize because it can mimic malignancy. Patients with involvement of the breast can present with painless palpable mass and ill-defined sensation or abnormal mammogram. The radiologic presentation of RDD lesions can have a notable diversity, but commonly have an appearance that is indistinguishable from breast carcinoma on mammogram and US. Therefore, the main diagnostic modality is histopathologic evaluation, with the features of marked dilatation of sinuses due to accumulation of activated histiocytes that demonstrate variable degrees of emperipolesis, along with the immunohistochemical characteristics like S100+, CD68+, and CD1a–. Management of RDD depends on the symptoms and it can be conservative with observation, as long as some cases have spontaneous regression, especially in the classic nodal disease. Surgical excision may be indicated in unifocal extranodal disease, especially for symptomatic cases. A 14-year-old female adolescent visited a breast surgeon with a self-detected painless palpable mass in the left breast for 3 months, without systemic symptoms or significant family history. On examination, there was a firm 3.5-cm mass in the upper inner quadrant of the left breast. The mammogram revealed a focal distortion on axillary tail in the left breast, designated as BIRADS 4. US demonstrated two masses in the left breast, including a 3.4×2.6×1.5 cm hypoechoic, irregular mass at 11:00 and a 1×0.9×0.7 cm hypoechoic, irregular mass at 11:00, both near the infraclavicular region, accompanied by a 2.8×1 cm atypical lymph node in the left axillary region, designated BIRADS 4C. US-guided core biopsies of both masses were obtained, which showed a nonspecific chronic inflammatory process. A new core biopsy was performed but once more with nonspecific histopathological findings, as well as negative results from culture examinations. Following these indeterminate findings, the patient underwent excisional biopsy, which histopathologic conclusion finally elucidated the extranodal RDD diagnosis.

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553 - SECOND BREAST CANCER IN A WOMAN WITH GENETIC SYNDROME

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Neurofibromatosis type 1 (NF1) is an autosomal dominant genetic disease and is the most common neurocutaneous syndrome. It results from a defect in the gene located on chromosome number 17 that produces the protein neurofibromin, involved in controlling cell growth. Women with NF1 have a higher risk of developing breast and contralateral breast cancers. There is a relationship between high estrogen receptor (ER) and worse survival, which is also affected by the low overall life expectancy of patients with neurofibromatosis. Given that data also suggest that there are genes that interact with the ***NF1*** gene, particularly in relation to the Breast Cancer gene 1 (***BRCA1***) subset. The interaction of altered expression of the NF1 neurofibromin protein in breast cell lines with upregulation of Ras is not inhibited through the PI3K and Raf/MAPK/ERK pathways. Increased PI3K activity has often been related to poor survival and resistance to hormone treatment in ER-negative breast cancer, while elevated Ras/MAPK/ERK activity has been related to metastasis and poor survival in both ER positive and negative. Mutations and deletions in NF1 are even more prevalent in HER2-amplified breast cancer subtypes and in basal tumor subtypes. In fact, all women with NF1, such as the case reported below, should start screening for breast cancer from the age of 30 and not from the age of 50 as in women not affected by the disease, as well as adequate and early counseling of oncogenetic. MSF, 56 years old, female, with neurofibromatosis was treated for invasive ductal carcinoma (ICD) in the left breast, RH negative in 2006, with mastectomy and axillary emptying, followed by adjuvant chemotherapy and radiotherapy. Menarche at age 17, menopause around age 41, at which time she underwent chemotherapy, was nulliparous, and denied hormone use. She had a negative family history. She was admitted to the Mastology Unit of the HBDF in March 2021 with an ultrasound examination of the right breast on February 19, 2021, BIRADs 4 at the expense of a solid, irregular nodular image and imprecise limits at 12 o'clock, measuring 21×16 mm. On physical examination, nodular lesions (neurofibromas) of varying sizes were observed, distributed throughout the trunk and limbs, and a 3 cm nodulation was palpated in the upper internal quadrante (QSM) of the right breast, close to the NAC with a negative axillae and plastron on the left, staging cT2N0M0 — IIA. Core biopsy confirms CDI, grade II, with ductal carcinoma in situ present, and luminal B-like immunohistochemistry (IHC). Staging tests without an evidence of distant disease. In July 2021, a mastectomy was performed with a sentinel lymph node biopsy (SLNB) on the right in view of the clinical staging and IHC profile, but of the four lymph nodes stained with patent blue, three were positive in intraoperative frozen section biopsy; therefore, the axilla was completed with dissection. The patient was discharged on the first postoperative day with weekly follow-up at an outpatient clinic, and the dressing was discharged in August 2021. Biopsy results confirmed a 6.5-cm ICD, grade III, ICD present with intermediate nuclear grade, and with all disease-free margins. The patient was referred to a clinical oncology but arrived at the oncology more than 120 days after surgery, with time loss for adjuvant treatment.

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550 - SECRETORY CARCINOMA BREAST IN A YOUNG MAN

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Introduction: Secretory carcinoma of the breast is a rare disease, accounting for approximately 0.15% of breast cancer cases. This entity was first described in a child in 1966. However, one of the largest case series with SEER data, encompassing a total of 190 patients, showed that the median age at diagnosis was 56 years, and it can affect both sexes, being much more common in women. In this same series, 58% and 40% of patients were positive for estrogen and progesterone hormone receptors, respectively. Most cases (86.86%) were well to moderately differentiated tumors without lymph node involvement. Older patients had a worse prognosis. In general, the secretory breast carcinoma has a more indolent course with excellent prognosis. The treatment is based mainly on surgery, followed by radiation therapy. The role of chemotherapy and hormone therapy in these cases is not yet well established in the literature. Parallel to basal-like breast cancer, the indolent clinical course as well as prolonged survival seems opposite to that of common triple-negative breast cancer. In most cases of secretory breast carcinoma, reaching a 92% positivity rate, there is a fusion of the *ETV6-NTRK3* genes, activating aberrant cell proliferation pathways. Studies with NTRK inhibitors are being developed and will bring this therapeutic possibility soon. Due to the rarity of secretory carcinoma of the breast, notably in men, we report the case of a young man with this neoplasm. A.S.R., 20 years old, male, from Guaraciaba do Norte (CE), white, single, telecommunications technician, reported that he noticed a painless, small, stable nodule in his left breast in 2012. He did not seek medical help at the time. In June 2021, the patient suffered trauma to her left breast during a soccer match. After this event, she noticed a considerable growth of a nodule in the left breast, which became painful to palpation. He then sought medical attention in a health center and underwent an ultrasonography of the left breast in August 2021, which detected a hypoechoic nodular image, oval, with well-defined limits, and regular contours, measuring 16.1×9.6×13.7 cm, 1.8 mm away from the skin, without vascularization inside the nodule (CATEGORY: BIRADS 3); little amount of stromal and glandular tissue were observed. A core biopsy of the nodule, performed in August 26, 2022, showed atypical epithelial proliferation. Immunohistochemistry was compatible with hypersecretory atypical epithelial proliferation. After the diagnosis of secretory carcinoma of the breast, the patient was referred to the Haroldo Juaçaba Hospital, a reference hospital in oncologic treatment in the North/Northeast of Brazil, where he underwent a slide review and immunohistochemistry, which confirmed invasive carcinoma of the secretory type of breast. Staging CT scans and bone scintigraphy were performed in September 2021. Chest CT showed a nodule with irregular contours and contrast medium concentration in the left breast, in close contact with the retropectoral musculature, measuring 19×10×12 mm, in addition to adenomegaly in the right axillary region (levels I and II), measuring up to 38×27 mm. There were no other relevant findings, with no evidence of secondary disease in the abdomen and bones. Investigation of right axillary adenomegaly with core biopsy continued and was negative for neoplasia. Histological picture and immunohistochemical profile were compatible with mixed lymphoid hyperplasia, follicular, and interfollicular. In December 28, 2022, the patient underwent a left mastectomy with sentinel lymph node biopsy, which revealed a secretory invasive carcinoma, measuring 1.9×1.5 cm, grade I, lymphovascular invasion, and negative margins, no lymph nodes were involved, nipple with compromised dermis and intraductal extension. Pathological staging: pT1c pN0 (sn-). The patient is currently on adjuvant systemic treatment (chemotherapy) with good tolerance.

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515 - SURGICAL EXERCISE OF INDUSTRIAL SILICONE IN A TRANSVESTI AFTER INFECTION: A CASE REPORT

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Industrial liquid silicone (ILS) has been used clandestinely to modify body contours in Brazil. It is noted that both men (transvestites) and women (mainly sex workers) have been using ILS injections into the breasts. Its use can cause complications, such as infections, migration of the product to other areas of the body, deformities, siliconomas, tissue necrosis, and many other health problems. ILS is not sterile and is not intended to be applied to humans. In addition, a siliconoma is frequently found in silicone mastopathy and is probably related to the increase in breast cancer expansion, most likely due to an abnormal opening of lymphatic channels close to the granulomas and in the silicone migration sites. The authors reported that the injection of silicone breast exeresis in a male homosexual patient was performed by a layman and without medical assistance for 46 years and, in addition, complaining for 1 year. Patient HS, 61 years old, male, working as a janitor, currently retired, with a history of industrial silicone application in the breasts for 46 years, sought medical assistance with the desire to remove the silicone after manifestation of breast tenderness, ecchymosis, and edema in both breasts 1 year ago. On examination, the presence of bilateral diffuse nodules was detected, and a detailed characterization was not possible during palpation due to edema and mastalgia, medium volume breasts, without ptosis or sagging, and well-positioned nipple-areolar complex (NAC). Liver function tests, mammography, and chest x-ray were performed, also all other routine presurgical tests with normal results. The mammography showed findings of benign bilateral and radiological siliconomas of BIRADS category 0. The patient was referred for psychological evaluation and follow-up, for subsequent surgical treatment. The procedure adopted was silicone excision with a bilateral simple mastectomy, which was uneventful and, later, the patient was discharged after 24 h. He is currently in postoperative recovery and awaits postsurgical evaluation.

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464 - THE IMPORTANCE OF MANAGING B3 LESIONS: A CASE REPORT

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The lesions of uncertain malignant potential of the breast, classified as B3, besides increasing the relative risk for breast cancer, have very heterogeneous abnormalities and raise a big question when defining conduct. A good multidisciplinary evaluation is necessary, comparing biopsy and imaging examination results. This study reports the case of a 54-year-old patient, without other risk factors for breast cancer, who was referred to MAMARJ, a mastology clinic, from a gynecology service, in November 2019 for evaluation of category 4 mammography, due to alterations in the right breast: linear and heterogeneous calcifications in the upper outer quadrant (UOQ) and punctiform and grouped calcifications lower inner quadrant (LIQ). Mammotomies were indicated, and histopathological reports were compatible with columnar cell hyperplasia with a focus on planar atypia — in the UOQ — and adenomyoepithelioma and columnar cell hyperplasia without atypia — in the LIQ. She was taken to surgery to remove the lesion from the UOQ (histopathology without malignancy). In July 2020, she underwent a mammography with a category 2 (BIRADS) report due to parenchymal distortion from previous surgery, and a ultrasonography with sparse cysts and bilateral ductal ectasia (category 3). One year later, in July 2021, she presented mammography — amorphous calcifications in the upper quadrants and punctate calcifications in the LIQ, near the clip from previous mammotomy. A mammotomy of the calcifications in the upper quadrants was performed. The diagnosis of the vacuum-guided biopsy was columnar cell changes with minimal architectural atypia in the upper quadrants. Removal of the lesion from the upper quadrants and the LIQ (target of the previous mammotomy) was indicated. The histopathological diagnosis was ductal carcinoma in situ (LIQ), associated with an atypical ductal hyperplasia, microcalcifications, and flat epithelial atypia. Immunohistochemical panel: estrogen receptor (ER) was positive, progesterone receptor (PR) was positive, and human epidermal growth factor receptor type 2 (HER2) was negative. The upper quadrant lesion was compatible with a focus on intraductal proliferation with discrete atypia. A simple mastectomy was performed with immediate reconstruction in the right breast. The mastectomy was indicated mainly because it was the patient's choice. As suggested, since the first diagnosis of B3 lesion and after that of ductal carcinoma in situ, the patient did not accept chemoprevention. It should be noted that risk-reducing mastectomy is cited only rarely for the prevention in cases of even recurrent and multicentric premalignant lesions, as in this case.

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516 - THE IMPORTANCE OF PROPER TREATMENT OF LACTATIONAL MASTITIS

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Introduction: Lactational mastitis is an inflammatory process of the breast that may or may not cause uncomfortable clinical manifestations. It is also an important cause of weaning, according to data from the World Health Organization (WHO), increasing the cost of care, and hence becoming a public health problem. In addition, it can be observed that, as it is a harmful process, it interferes with the quality of life of the woman-mother and, consequently, the mother-child relations. In addition, an increased risk of transmission of the virus has been reported in those with this infection. ***Objective:*** This study analyzed the importance of adequate treatment of lactational mastitis. ***Methods:*** This is a literature review carried out in January 2022, through searches in the PubMed and SciELO search interface. The descriptors were used: "Mastitis" and "Lactational," combined with the Boolean operator "AND." The inclusion criteria were texts available in full, in English and Portuguese, which addressed the proposed theme. In contrast, duplicate articles were excluded, granted only in the form of abstracts and which did not answer the guiding question, and ending with five publications. ***Results:*** The greater mammary glandular activity together with breastfeeding, which induces a great deal of manipulation of the breast, causes the inflammatory processes to greatly affect the puerperal breast. The nipple, through galactophore channels, can become a gateway to infections, and the following are the most common microorganisms to cause this pathology: *Staphylococcus aureus*, Streptococcus group A or B, *Escherichia coli*, and *Bacteroides* sp. The predisposing factors are nipple anomalies and poor hygienic breastfeeding conditions, but the determining cause is sucking by the infant. During breastfeeding, the pain felt by the woman is the predominant symptom in the diagnosis, but bloody vomiting or stools with pure blood in the infant can also be warning signs. Thus, breast infection during breastfeeding requires an immediate and adequate treatment, since if left untreated it can lead to the interruption of breastfeeding, as well as more serious complications, such as the formation of a breast abscess. In this context, the treatment of mastitis can basically be done with an antibiotic therapy and emptying of the breast. Eventually, surgical drainage is performed in cases of abscess formation. Thus, the choice of the appropriate treatment becomes essential for the cure and prevention of complications in the mother and in the infant. ***Conclusion:*** In view of this, it is concluded that one of the factors related to early weaning is that the knowledge of its clinical characteristics allows the implementation of intervention measures that, when carried out in a preventive way, favor the reduction of new cases. It also consists of a serious condition that can be avoided with good quality primary health care. However, other studies need to be carried out to determine the incidence and predisposing factors for this pathology, in order to adopt a more appropriate approach.

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497 - TUBERCULOUS LYMPHADENITIS: A CASE REPORT

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Tuberculous lymphadenitis is the infection of lymph nodes by ***Mycobacterium tuberculosis***. In the USA, about 8.5% of the cases of tuberculosis (TB) were characterized by lymphadenitis. The peak occurs between 30 and 40 years of age, primarily in women. Extrapulmonary TB is usually diagnosed in immunocompromised patients. The diagnosis is given by positivity in the AFB (Alcohol-Acid Resistant Bacillus) in Ziehl-Neelsen staining by sample collected by fine-needle puncture or lymph node excision. Cyto and histological analysis demonstrate epithelial cells, caseous necrosis, and necrotic cells. Such findings, added to the presence of langerhan's giant cells, favor the diagnosis of TB even in AFB and/or negative cultures. Mantoux test is usually positive. Culture is the definitive diagnosis. Surgical excision should be reserved for diagnostic in HIV-seronegative patients. The picture involves progressive and painless growth of the lymph node chain, which may reach 8–10 cm. One-sidedness occurs in most cases. Peripheral lymphadenopathy is common among breast pathologies. The case is unusual due to the suspicion of axillary lymphadenopathy being of neoplastic origin from compatible histopathological and immunohistochemical analysis of a core biopsy. However, after the excision of lymph node clusters, histopathology showed the absence of tumor and metastatic cells. The analysis of slides with palisaded epithelioid granulomas and caseous necrosis, however, is consistent with TB lymphadenopathy. However, some points made such a verdict difficult such as negative fungal and alcohol-acid-resistant bacilli (AFB) research, as well as the presence of lymphadenopathy in the contra lateral armpit and inguinal chains, the absence of cervical lymph node enlargement and any other suggestive symptoms of associated extra-pulmonary tuberculosis. The other possibilities include non-TB mycobacteria, ***Bartonella*** sp, fungi (Histoplasma) and parasites (***Toxoplasma gondii***), lymphomas, sarcomas, metastatic carcinomas, sarcoidosis, cat-scratch disease, and congenital lymphatic malformations. Treatment should be performed after the confirmation of diagnosis or when susceptibility to antimicrobials is suspected (empirical treatment). In the first 2 months of the treatment, Isoniazid, Rifampicin, Pyrazinamide, and Ethambutol were used; followed by 4 months of Isoniazid and Rifampicin. The guidelines recommend surgical excision only in unusual situations, such as therapeutic failure. Ulceration, fistulas, and abscesses are complications. A 26-year-old female, nursing mother, breastfeeding only through the left breast due to a history of clefts in the right breast and with a family history of breast cancer, was referred to the breast service due to the appearance of painless nodules in her right armpit with progressive growth. Previously, she had been treated with Amoxicillin and Azithromycin, with no change in her condition. On physical examination, a lymph node aggregate was found in the right axilla. She underwent ultrasound and mammography examinations, which showed lymph nodes, measuring 2.9×1.3, 2×1.4, and 1.3×0.8 cm in the right armpit, compatible with BI-RADS IVc classification. It was decided to suppress lactation with Cabergoline and proceed with core biopsy, which showed fibrofatty tissue with chronic inflammation and epithelioid granuloma in the anatomopathological examination, and immunohistochemistry showed the markers CKM (AE1/AE3/PCK26), GATA-3 (L50-823), and Mamoglobin A (304-1A5) all negative, compatible with metastasis of primary breast cancer. After discussion, it was decided to proceed with the removal of the fused lymph nodes at level I of the right axilla. The histopathological diagnosis showed epithelioid and palisade granulomas with caseous necrosis in the lymph nodes, with negative BAAR research. Also, laboratory examinations for syphilis, HIV, HCV, and HBV were all negative and a clean chest x-ray. This patient will start treatment for TB.

Keywords: tuberculosis; lymphadenopathy; lymphadenitis; granuloma.

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498 - TUBERCULOUS LYMPHADENITIS: A LITERATURE REVIEW

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Introduction: Lymphadenitis, also previously called "scrofula," is the most common cause of manifestation of extrapulmonary tuberculosis (TB), an extremely prevalent disease in underdeveloped regions, causing millions of deaths around the world. This is why it must be recognized and treated as early as possible. ***Objective:*** This review aims to summarize the main topics of tuberculous lymphadenitis (TL), covering epidemiology, clinical, and recent treatments. ***Methods:*** This article consists of a review of publications on the subject. The research was carried out through SciELO, PubMed, and LILACS databases, as well as virtual scientific libraries such as DynaMed and UpToDate. Results: TL is the infection of lymph nodes caused by *Mycobacterium tuberculosis*, and it is the most common type of extrapulmonary TB, mainly in endemic areas. Worldwide, there is an increase in the incidence of TB in developed and underdeveloped countries, resulting in millions of deaths per year. Its relationship with HIV and the consequent development of extrapulmonary forms has been increasingly common, representing about 21% of TB cases in the United States. The main extrapulmonary TB sites are as follows: lymph nodes, pleura, meninges, bones, miliary, and disseminated. In HIV patients, atypical presentations are not uncommon. The clinical picture consists of slow lymph node growth, generally affecting the cervical region and may affect other sites; signs and symptoms of the primary TB may also be present. The diagnosis of TL is made by culture or molecular identification of *M. tuberculosis* in the tissue of the affected lymph node, which can be approached by excision or by fine-needle biopsy. The anatomopathological findings are giant epithelioid cells, granulomas, and caseous necrosis. Treatment should be started empirically according to the clinic, awaiting laboratory confirmation, and its first line consists of the first 2 months with RHZE (Rifampicin, Isoniazid, Pyrazinamide, and Ethambutol), followed by 4 months of Isoniazid and Rifampicin. Paradoxical worsening after starting the therapy is one of the complications, usually occurring 8 weeks after starting the treatment. Management should be monitored on an outpatient basis, with cure occurring in up to 94% of the cases. ***Conclusion:*** TL is one of the main manifestations of extrapulmonary TB, closely related to coinfection with HIV. It should be promptly investigated in patients with a compatible clinical presentation and present in endemic areas. Its treatment, despite long duration, cures the vast majority of cases and reduces the overall morbidity and mortality of properly treated patients.

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529 - TUMORAL EMBOLIZATION IN THE THERAPY OF LARGE BREAST TUMORS

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Phyllodes tumors (PTs) of the breast correspond to about 1% of women's breast tumors. Predominantly, benign has a high rate of local recurrence. The diagnosis is usually clinical, showing up as a voluminous tumor. Treatment, in most cases, is surgical alone; chemotherapy and radiotherapy are still uncertain on PT. Treatment based on arterial embolization of the tumor prior to surgery to improve morbidity is a practice that is rarely used, but this technique can be suggested as a saving measure. M.C.J.S., female, 39 years old, in 2013, presented with a nodule in the left breast, measuring 4 cm, mobile, painless, oval, which did not retract the skin. A nodulectomy was performed, with an anatomopathological diagnosis of benign PT. In 2015, there was a new recurrence, with a small volume, and the surgical margin was enlarged. In 2016, the patient evolved with a local recurrence of about 9 cm, being opted for neoadjuvant chemotherapy and radiotherapy and a total left mastectomy. In 2017, the left breast reconstruction with prosthesis placement was performed. In 2018, the patient was admitted to the mastology clinic of the Hospital Guilherme Álvaro (Santos, SP), with a new tumor recurrence, in the left axillary region, with only 3 months of evolution, and after chemotherapy treatment for regression in another service, without clinical improvement. The tumor measured about 36 cm in the left axillary region. It was then opted for radiotherapy for tumor regression. After 25 sessions, the patient returned with a tumor of the same dimensions; she was emaciated with a decline in her general condition, local pain, and unable to move her left upper limb. The patient was hospitalized for clinical stabilization and interdisciplinary planning for appropriate management. After attesting to the failure of the attempt to regress the tumor size with systemic treatment and failure to stabilize the tumor progression with radiotherapy, with no clinical improvement, the patient began to increasingly decline in general condition due to great wasting syndrome. In August 2018, after surgical planning, a tumor angiography was performed, and the poor vascularization of the tumor was noted, which after the radiotherapy had a necrotic clinical aspect, being opted for a surgical approach to the lesion. The autonomized Tram technique, with increased blood supply by an arterial and venous microvascular anastomosis of the deep inferior epigastric artery, was deprecated for covering the surgical wound. The procedure was done the week before the surgery. Two days before surgery, tumor embolization was performed via catheterization, with the application of intratumoral hemostatic gelfoam and with immediate radiological result of a section of the blood flow in the tumor. On the day after the procedure, the patient's main complaint was a pain in the tumor bed, which was easily controlled with nonsteroidal anti-inflammatory drugs. The surgery was performed on August 24, 2018, with a tumor excision that compromised a large part of the adjacent musculature; there was no major bleeding and the procedure lasted for about 8 h, with the surgical wound being covered by flaps I, II, III, and IV of the Tram. The main postoperative complications were chronic left arm lymphedema and difficulty in mobilizing it, without other significant complications.

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525 - USE OF NEOADJUVANT CHEMOTHERAPY AND DISSECTION OF THE POSITIVE SENTINEL LYMPH NODES IN THE TREATMENT OF BREAST CANCER ONLY ON STAGES T1 TO T2

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Objective: Breast cancer is the most common cancer that occurs in women. Its treatment is based on mastectomy, which can be radical or quadrantectomy. Surgery is performed with axillary lymph node dissection (ALND) or sentinel lymph node dissection (SLND), in addition to the prior or subsequent use of radiotherapy and chemotherapy. This article aims, in this sense, to evaluate the displacement of surgery with positive sentinel in patients undergoing neoadjuvant chemotherapy (NAC) and radiotherapy compared to standard treatment of ALND in positive or expectant sentinel in patients with negative lymph nodes associated with NAC. ***Methods:*** This is a retrospective study based on an analysis of medical records from the Hospital São Vicente de Paulo (HSVP) in Guarapuava, PR, from 2011 to 2020. Patients are selected for breast cancer at an early stage, with maximum stage IIIA, quadrantectomy, NAC, and lymph node sentinel biopsy based on the patent blue application being the inclusion criteria for all groups. ***Results:*** The results showed recurrence in two patients in the control group (7%) and in one patient in the study group (17%), which resulted in posterior death. ***Conclusion:*** Standard breast cancer patients, who are in intermediate stage, post menopause and positive lymph node in biopsy, had a better treatment response when compared with other patients. Furthermore, in this study, young patients had a worse response than the others. However, more studies with diversification and longer follow-up time are needed to have more solid conclusions.