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ABOUT

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Contents

EDITORIAL

1 **XXVI Brazilian Mastology Congress**
Andrea Damin

ABSTRACTS

2 **28574 – Tumor-associated macrophages and their relationship with histopathological prognostic factors in breast cancer**
Aline Carvalho Rocha, Victor Piana de Andrade

3 **28568 – Mutations in the FANCC and CREBBP genes differentiate a case of a patient with triple-negative breast tumor and favorable clinical progression**
Ana Luiza de Freitas Magalhães Gomes, Letícia da Conceição Braga, Paulo Guilherme de Oliveira Salles, Carolina Pereira de Souza Melo, Clécio Ênio Murta de Lucena

4 **28541 – The efficacy of carboplatin in neoadjuvant treatment of triple-negative breast carcinoma in patients treated at Hospital Geral de Caxias do Sul**
Andressa Luise Bianchi, Maximiliano Casilha Kneubil, Janaína Brollo

5 **28604 – Effects of taping application on the post-operative period following reconstructive breast surgery: a case series from the *Breastaping I* study**
Andressa Vieira da Rosa, Natanielle Silva Dutra, Keila Cristiane Deon, Andrea Pires Souto Damin

6 **28649 – Breast MRI in the Unified Health System (SUS): a three-month experience at the Porto Alegre Clinical Hospital**
Augusto Ostermann Magalhães, Andrea Pires Souto Damin, Angela Erguy Zucatto, Thais Vicentine Xavier, Paula Nunes Merello

7 **28619 – Malignant tumor of the peripheral nerve sheath induced after radiotherapy for breast cancer: a case report and therapeutic approach**
Bianca Ceratti Zardo, Alexandre Pedroso de Albuquerque Olmedo, Andrea Barlezze, Alan Azambuja, Ruben Rodriguez

8 **28565 – Management of Raynaud's phenomenon during breastfeeding: a case series**
Camila Vitola Pasetto, Eduarda Perini Nascimento, Lucas Roskamp Budel

9 **28606 – Association between Neurofibromatosis Type 1 and Breast Cancer: a case report and literature review**
Christiane Cardoso Falcão, Tânia Souza Machado da Silva, Felipe Lopes Marafioti Martins, Letícia de Stefani Dalponte, Victor Quarentei Ciaccio

10 **28603 – Mixed breast carcinoma: a diagnostic challenge**
Christiane Cardoso Falcão, Tânia Souza Machado da Silva, Victor Quarentei Ciaccio, Cristiane Barma Leitzke, Letícia Enedina do Nascimento Torquato

11 **28609 – Mammary Myofibroblastoma: a case report and literature review**
Christiane Cardoso Falcão, Tânia Souza Machado da Silva, Thaynara Karoline de Souza Pereira, Clarissa Mendes Remor, Letícia Bendo

12 **28630 – BRCA2 mutation in a family and associated tumors: a case report**
Christiane Cardoso Falcão, Tânia Souza Machado da Silva, Dara Francisca Baldo, Victor Quarentei Ciaccio, Letícia Enedina do Nascimento Torquato

13 **28567 – The staging of breast cancer in patients aged 40 to 50 years attended between 2015 and 2019 at the University of Vale do Itajaí and a private clinic in the southern region of the country.**
Cristiano Steil da Silva, Regina Pedrini Braga, Natália de Oliveira Barbosa dos Santos, Bruna Altvater Saturnino

14 **28592 – Factors associated with survival in patients with triple-negative breast cancer**
Sabas Carlos Vieira, Erlan Clayton Xavier Cavalcante, Maria Clara Amorim Silva, Edimar Duarte Val, Alana Maria Caland de Holanda Lustosa

15 **28598 – The use of blue dye alone for sentinel lymph node biopsy after neoadjuvant chemotherapy in patients with initially node-positive breast cancer**
Francisco Pimentel Cavalcante, Felipe Zerwes; Alessandra Borba, Eduardo Millen, Antonio Frasson

17 **28546 – Health equity: the transformative impact of telephonic teleconsultation on vulnerable populations with breast cancer**
Gabriel Salum DAlessandro, Jonathan Yugo Maesaka, Yedda Nunes Reis, Mila Trementosa Garcia, Daniela Zaros Guimaraes

18 **28641 – Batwing technique in breast oncoplastic surgery: a bibliographic review**
Gabrielle Alessandra Socorro do Nascimento, Elvis Lopes Barbosa

19 **28597 – Integrative review: risk factors and complications of breast oncoplastic surgery**
Gabrielle Alessandra Socorro do Nascimento

20 **28588 – Clinical profile of breast cancer cases in women under 50 years of age treated at a referral center**
Gina Zully Carhuancho Flores, Marlon Marcelo Maciel Sousa, Danielle Calheiros Campelo Maia, Aline Carvalho Rocha

21 **28622 – Vacuum-assisted biopsy as a diagnosis of low-risk ductal carcinoma in situ (DCIS) with progression potential and subsequent active surveillance**
Henrique Lima Couto, Carolina Nazareth Valadares, Aleida Nazareth Soares, Bernardo Ferreira de Paula Ricardo, Vivian Resende

23 **28646 – Breast Adenomioepithelioma: a case report**
Isabella de Andrade Figueirêdo, Gustavo Henrique Torres de Sales Barbosa

24 **28564 – Non-breast diseases mimicking breast conditions: a case report**
Kamilla Gomes Nunes, Maira Caleffi, Leo Francisco Doncatto, Marcia Silveira Graudenz

25 **28627 – Imaging approach to male breast disease: a retrospective analysis of an image database from a clinic in Belo Horizonte**
Keila Rezende André, Douglas de Miranda Pires, Henrique Lima Couto, Tereza Cristina Ferreira de Oliveira, Thais Paiva Moraes

26 **28599 – Breast reconstruction with latissimus dorsi muscle flap lipoinjected assisted by indocyanine green and SPY-PHI: a case report and literature review**
Lilian de Sá Paz Ramos, Carolina Fontes de Teive e Argolo Gonçalves, Ronald Enrique Delgado Bocanegra, Jorge Villanova Biazús

27 **28602 – Infiltrating breast cancer of the capsule of a breast implant: a case report and literature review**
Lilian de Sá Paz Ramos, Annelise Lisboa Peixoto, Laila Vanessa de Jesus, Jorge Villanova Biazús

28 **28584 – Analysis of breast biopsy results according to age group in Brazil**
Liliane Salvador, Thiago Brusa da Costa Linn, Rômulo Felipe Auler, Guilherme Caemerer Legramanti, Andréa Pires Souto Damin

29 **28589 – Immunohistochemical and molecular aspects of breast phyllodes tumors and their implications for diagnosis and treatment: a scoping review**
Luiz de Paula Silveira Júnior, Luiz de Paula Silveira Neto, Luiza Cesca Piva, Maria Luiza Bessa de Paula

30 **28636 – Invasive breast carcinoma associated with fibroadenolipoma: a case report**
Luiza de Melo Cerqueira, Ana Luísa Dziedicz da Silva, Larissa Oldoni Corá, José Clemente Linhares

31 **28612 – Left axillary schwannoma with malignant-like lymph node involvement: a rare case report**
Luiza Herdy Boechat Luz Tiago, Eloisa Fritsche, Isadora Alberti Goedert, Lucio Flavo Dalri

32 **28637 – Analysis of overall survival and disease-free survival in patients undergoing neoadjuvant chemotherapy: real-world data from Brazil**
Marcelo Antonini, Andre Mattar, Andressa Gonçalves Amorim, Marina Diogenes Teixeira, Luiz Henrique Gebrim

33 **28624 – Breast cancer mortality and pesticide use in the Western Mesoregion of Santa Catarina, Brazil**
Marcelo Moreno, Maria Isabel Gonçalves da Silva, Clodoaldo Antônio de Sá, Carlos Alberto Rizzi, Eduardo Augusto Werneck Ribeiro, Márcia Orth Ripke, Vanessa da Silva Corralo

35 **28626 – Oxidative markers in patients with breast cancer**
Marcelo Moreno, Daiane Manica, Eduarda Valcarenghi, Débora Tavares de Resende, Sarah Franco Vieira de Oliveira Maciel

36 **28628 – Antiproliferative effect of caffeine on a triple-negative breast cancer cell line**
Marcelo Moreno, Daiane Manica, Gilnei Bruno da Silva, Ariane Zamoner, Margarete Dulce Bagatini

37 **28634 – Advances in artificial intelligence and genetic testing for the preventive diagnosis of breast cancer**
Maria Catarina Wilhelms Guimarães, Isabella Schnorr Paglioli, Rafaela Zell, Camila Salles, Marina Amaral

38 **28512 – Is ssentinel lymph node biopsy as harmless as it seems?**
María Elisa Nùñez Gonnet, Maite Campos, Gabriela Larrosa, Marysol Martinez, Susana Reyes

39 **28457 – Epidemiological and clinicopathological parameters associated with neoadjuvant chemotherapy in breast cancer during the COVID-19 pandemic**
Maria Fernanda da Motta Sperotto Valadares Gontijo, Letícia Martins de Araújo Campos Linhares, Luísa Lazarino de Souza Campos, Marcela de Oliveira Sá, Caroline Cançado Avelar

40 **28563 – Radioinduced breast angiosarcoma: a case report**
Luiz de Paula Silveira Júnior, Maria Luiza Bessa de Paula, Luiz de Paula Silveira Neto, Sebastião Alves Pinto

41 **28566 – Primary breast lymphoma associated with invasive breast carcinoma: a case report**
Mariana Copetti Goi, Ana Paula Santana de Abreu, Sheila Cristina Lordelo Wludarski, Joaquim Teodoro de Araújo Neto, Edison Mantovani Barbosa

43 **28635 – Epidemiological aspects of contraception in women with breast cancer and patterns of uterine bleeding**
Marina Fleury de Figueiredo, Luís Carlos Sakamoto, Gabriela Alvarez Sabbag, Isabela Vitarelli Lima Costa, Pietra Andrade de Osti

44 **28560 – The role of tumor resistance in neoadjuvant chemotherapy: efficacy of a novel in vitro breast cancer chemoresistance platform to demonstrate high resistance patterns in residual disease**
Martina Lichtenfels, Vivian Fontana, Bianca Silva Marques, Francine Hickmann Nyland, José Luiz Pedrini

45 **28561 – A novel in vitro breast cancer chemoresistance platform**
Martina Lichtenfels, Mário Casales Schorr, Isis Mendes Barbosa, Caroline Brunetto de Farias, José Luiz Pedrini

46 **28570 – Nipple-sparing mastectomy in young versus elderly patients**
Antônio Luiz Frasson, Isabela Miranda, Betina Vollbrecht, Carolina Malhone, Martina Lichtenfels

47 **28571 – Which are the factors affecting local recurrence after neoadjuvant chemotherapy in patients undergoing NSM?**
Antônio Luiz Frassson, Ana Beatriz Falcone, Isabela Miranda, Monica Adriana Rodriguez Martinez Frasson, Martina Lichtenfels

48 **28572 – Postoperative complications following nipple-sparing mastectomy: comparison of neoadjuvant and adjuvant chemotherapy**
Antônio Luiz Frasson, Ana Beatriz Falcone, Luiza Kobe, Fernanda Barbosa, Martina Lichtenfels

49 **28623 – Effects of oncoplastic surgery in breast cancer treatment in oncology patients: an integrative review**
Milena de Faria Souza Reis, Joizeanne Pedroso Pires Chaves, Camila de Souza Santos

50 **28507 – Oncoplastic surgery: experience from the first postgraduate course in breast reconstruction**
Nancy Ferreira, Darley de Lima Ferreira Filho, Carolina de Souza Vasconcelos

51 **28576 – Retrospective analysis of the epidemiological profile of patients undergoing breast reconstruction in a public hospital in the Northeast**
Nancy Ferreira, Darley de Lima Ferreira Filho, Thais de Lucena Ferreira

52 **28647 – Effects of taping application in the immediate postoperative period in women undergoing liposuction in the abdominal and flank regions for breast lipofilling: a case series**
Natanielle Silva Dutra, Andressa Vieira da Rosa, Keila Cristiane Deon e Andrea Pires Souto Damin, Keila Cristiane Deon, Andrea Pires Souto Damin

53 **28569 – Profile of breast cancer patient care in a reference hospital in Rio Grande do Sul**
Nathalia Cruz da Costa, Lais Lima, Andréa Pires Souto Damin

54 **28590 – Predictive value of tumor-infiltrating lymphocytes for residual disease in triple-negative breast cancer in patients after neoadjuvant chemotherapy**
Nathalia Cruz da Costa, Andrea Pires Souto Damin

55 **28591 – Evaluation of the predictive role of tumor-Infiltrating lymphocytes in patients with HER-2 positive breast cancer**
Laís Lima Ferreira, Nathalia Cruz da Costa, Andréa Pires Souto Damin

56 **28631 – Metastasis of mammary carcinoma in endometrial polyp**
Paula Nunes Merello, Thais Vicentine Xavier, Angela Erguy Zucatto, Jorge Villanova Biazus, Andre Pires Souto Damin

57 **28579 – Performance of breast surgeons in managing hereditary predisposition to cancer**
Rebeca Neves Heinzen, Maria Eduarda Cardoso da Silva Meyer, Leonardo de Brittes Andrade, Kauí Patrício Lebarbenchon, Victor Quarentei Ciaccio

58 **28607 – Brown spider bite on the breast: a case report**
Rogerio Grossmann, Carlos Alberto Spalding Lessa, Viviane Sabben

59 **28585 – Analysis of the average time to receive histological diagnosis of breast pathologies in Brazil**
Rômulo Felipe Auler, Ramon Henrique Auler, Liliane Salvador, Guilherme Caemerer Legramanti, Andréa Pires Souto Damin

60 **28586 – Analysis of the accuracy of imaging exams for the detection of malignant breast lesions**
Rômulo Felipe Auler, Thiago Brusa da Costa Linn, Liliane Salvador, Ramon Henrique Auler, Andréa Pires Souto Damin

61 **28581 – Pseudolactational secretory hyperplasia (pregnancy-like hyperplasia) with atypia: a case series and literature review**
Samira Juliana de Moraes Machado, Marina Sonagli, Fernanda Perez Magnani Leite, Cynthia Aparecida Bueno de Toledo Osório, Fabiana Baroni Alves Makdissi

62 **28488 – Detection, isolation, and characterization of viable bovine leukemia virus in fresh mammary tissue and human leukocytes**
Sirlei dos Santos Costa

63 **28578 – Mammary hidradenocarcinoma and invasive lobular carcinoma: a challenging case**
Tânia Souza Machado da Silva, Christiane Cardoso Falcão, Larissa Siqueira, Victor Quarentei Ciaccio, Letícia Enedina do Nascimento Torquato

64 **28639 – Rare case of male mammary pseudoangiomatous hyperplasia with literature review**
Tânia Souza Machado da Silva, Christiane Cardoso Falcão, Victor Quarentei Ciaccio, Cristiane Barma Leitzke, Letícia Enedina do Nascimento Torquato

65 **28577 – Temporal analysis of breast cancer in Santa Catarina (2019–2023): uncovering the effects of COVID-19 on breast health**
Tânia Souza Machado da Silva, Christiane Cardoso Falcão, Letícia Enedina do Nascimento Torquato, Cristiane Barma Leitzke, Laura Casini

66 **28617 – Ryetomies associated with lipotransference for oncoplastic refinement**
Thais Vicentine Xavier, Jorge Villanova Biazús, Andrea Pires Souto Damin, Paula Nunes Merello, Márcia Portela de Melo

67 **28618 – Reconstruction with a plug-flap based on the lateral intercostal perforating artery**
Thais Vicentine Xavier, Jorge Villanova Biazús, Andrea Pires Souto Damin, Paula Nunes Merello, Rodrigo Cericatto

68 **28644 – Post-radiation morphea as a complication of treatment for invasive ductal carcinoma: a case report**
Valentina Barros Braccini de Aguiar, Betina Vollbrecht, Fernanda Wagner, Letícia Sarah de Azevedo, Paula Paim Grippa

69 **28615 – Cryoablation in the treatment of early breast cancer: results from the study FreezIng bReaST cancer in Brazil (FIRST)**
Vanessa Monteiro Sanvido, Silvio Eduardo Bromberg, Bruna Mayumi Takaki Tachibana, Angela Flávia Logullo Waitzberg, Afonso Celso Pinto Nazário

EDITORIAL
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XXVI Brazilian Mastology Congress

The XXVI BRAZILIAN MASTOLOGY CONGRESS was held from April 10th to 13th, 2024, in Porto Alegre, Rio Grande do Sul, Brazil, one month before the devastating flood that affected the city and neighboring areas along the Guaíba River.

The Congress was successful, with more than 1,100 participants, 5 international speakers, and 245 national speakers. Over the three days, cutting-edge scientific content was discussed in various sessions.

During the pre-congress conference, the multidisciplinary aspect of the field was highlighted, with the involvement of nurses, physiotherapists, and psychologists through a series of lectures. A multidisciplinary approach was emphasized as crucial for patient care.

Additionally, topics such as oncoplastic surgery, oncology, and genetic aspects were covered in the pre-congress meetings. More than 90 scientific presentations in electronic format were displayed, and the abstracts of these works can be found in this edition. Monetary prizes were awarded to the two most outstanding works.

The Congress took place inside a shopping center, which offered all kinds of facilities, including various restaurants, stores, and services. The shopping center is located on the shores of the Guaíba River, and the stunning setting contributed greatly to the event's success.

During the Congress, a 3 km night race was organized for participants, who tested a new model of sneakers. The race, held along the Guaíba River shoreline, was a fun and enjoyable activity for all involved.

The Congress consolidated the enormous importance of Brazilian Mastology in the scientific community, reinforcing the role of the Brazilian Society of Mastology. I am confident that all participants left with a high level of scientific knowledge, alongside the unique experience of attending an event in such a beautiful location.

Sadly, one month after the Congress, Porto Alegre became the site of a terrible flood that destroyed many areas along the Guaíba River and caused numerous casualties in the city and neighboring towns. The airport was closed and reopened only in October.

I would like to express my heartfelt gratitude to all who participated in the congress and to everyone who offered help and contributed to the city's reconstruction efforts.

Best regards,
Andrea Damin
President of the XXVI Brazilian Mastology Congress.
President of the Brazilian Society of Mastology – Regional Rio Grande do Sul.

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28574 – TUMOR-ASSOCIATED MACROPHAGES AND THEIR RELATIONSHIP WITH HISTOPATHOLOGICAL PROGNOSTIC FACTORS IN BREAST CANCER

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Introduction: The immune system plays a leading role in the tumor microenvironment due to the unique characteristics of its cells, such as macrophages, lymphocytes, among others. Tumor-associated macrophages (TAM) constitute up to 50% of the tumor mass in breast cancer and are vital to the innate immune response. Recently, numerous studies have been published evaluating the relationship between tumor-infiltrating lymphocytes (TILs) and TAMs in triple-negative breast tumors. High levels of TILs (CD8+ T cells) may be associated with a better prognosis, while high levels of TAMs are linked to poorer survival. **Methodology:** Cross-sectional study conducted on patients with histopathological diagnosis of invasive breast cancer and initial clinical staging who underwent upfront surgery (quadrantectomy or mastectomy) and sentinel lymph node biopsy at AC Camargo Cancer Center. The database, which included 760 patients divided into five groups by TMA, was reviewed through medical record analysis. Following inclusion and exclusion criteria, 101 patients were selected, representing luminal tumors, triple-negative, and HER2-positive overexpressed cases. When analyzing the number of cells stained with the macrophage marker, it was found that the cutoff point for total macrophages (CD68) was 110 cells/mm^2. Means and standard deviations of the quantitative variables were expressed and compared using the Mann-Whitney test (non-parametric data, with normality assessed by the Kolmogorov-Smirnov test). Categorical data were analyzed using Fisher's Exact Test and Pearson's chi-square test, expressed as absolute frequency and percentage. This study was submitted to the Ethics Committee via Plataforma Brasil under protocol number: 1896/14. **Conclusion:** Therefore, it can be concluded that high expression of CD68, characterized by a moderate to intense peritumoral infiltrate, is associated with histological grade III, high mitotic index, and triple-negative tumors. Conversely, a low number of CD68-positive cells is linked to luminal tumors, HER2-negative status, histological grades I and II, and a low mitotic index. Although additional markers are needed for macrophages, CD68 expression is a reliable prognostic biomarker in breast cancer, correlating with classic histopathological factors.

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28568 – MUTATIONS IN THE FANCC AND CREBBP GENES DIFFERENTIATE A CASE OF A PATIENT WITH TRIPLE-NEGATIVE BREAST TUMOR AND FAVORABLE CLINICAL PROGRESSION

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Introduction: Triple-negative breast cancer (TNBC) accounts for approximately 15% of diagnosed cases. Characterized by the lack of tumor expression of estrogen, progesterone, and HER2 receptors, it is the most aggressive subtype with the poorest prognosis, exhibiting heterogeneous behavior given the limited available systemic therapies. The heterogeneity of TNBC was first studied by Lehmann et al. in 2011, and with ongoing research, the disease is now divided into five distinct groups: basal-like 1 (BL1), basal-like 2 (BL2), immunomodulatory (IM), luminal androgen receptor-positive (LAR), and mesenchymal/magnetic stem-like (M/MSL). Each subtype has unique molecular features and suggests the possibility of different therapeutic options. Several biomarkers have been studied as potential targets for TNBC treatment, but there has yet to be a significant change in the prognosis of these patients. **Methodology:** Three patients with TNBC were studied, recruited through one of the projects of the National Oncology Care Support Program (PRONON) from the Mário Penna Institute (Ministry of Health, NUP 25000.079266/2015-09), approved by the Research Ethics Committee (Ethics Submission Certificate – CAEE: 82703418.8.0000.5121). Tumor DNA samples from these patients were extracted from material obtained via fine-needle biopsy or primary breast surgery using the AllPrep DNA/RNA Kit. Next-generation sequencing (NGS) was performed using the QIAseq® Pan-cancer Multimodal panel kit (UHS-5000Z). The generated data were analyzed using the QIAGEN CLC Genomics Workbench 22 software. All sequences were mapped, and a list of mutations (both synonymous and non-synonymous) for each patient was determined, referencing the human genome version GRCh38/hg38. These data were correlated with the patients' clinical outcome data. **Conclusion:** In this study, variants of uncertain significance (VUS) were identified in the FANCC and CREBBP genes in a patient with TNBC who showed a favorable clinical course. No variants in these genes were found in the other two patients with poorer prognoses analyzed. These findings, combined with the roles of these genes in processes related to carcinogenesis, suggest a potential genetic signature associated with good prognosis for TNBC, which should be validated in future complementary studies. With further analysis and the sequencing of tumor DNA from a larger number of patients, it is expected to confirm these findings or even identify other pathways with prognostic or predictive value.

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28541 – THE EFFICACY OF CARBOPLATIN IN NEOADJUVANT TREATMENT OF TRIPLE-NEGATIVE BREAST CARCINOMA IN PATIENTS TREATED AT HOSPITAL GERAL DE CAXIAS DO SUL

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Introduction: In Brazil, breast cancer is the most common neoplasm among women and also the leading cause of cancer-related death. Approximately 20% of patients have triple-negative breast cancer (TNBC), for which chemotherapy remains the main neoadjuvant treatment. Patients who achieve a pathological complete response (pCR) after chemotherapy have demonstrated better survival outcomes. **Conclusion:** Our sample had a pCR rate of 57.1%, making it a financially feasible treatment within the Unified Health System (SUS). We observed good treatment tolerance. The median follow-up was 17 months, with 20% of patients deceased.

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28604 – EFFECTS OF TAPING APPLICATION ON THE POST-OPERATIVE PERIOD FOLLOWING RECONSTRUCTIVE BREAST SURGERY: A CASE SERIES FROM THE *BREASTAPING I* STUDY

Andressa Vieira da Rosa*, Natanielle Silva Dutra, Keila Cristiane Deon, Andrea Pires Souto Damin

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Introduction: Surgical treatment is the cornerstone for most cases of breast cancer. Working alongside the multidisciplinary team, the role of the physiotherapist has been increasing in early intervention for oncological, aesthetic, and reconstructive breast surgeries. Currently, it is possible to initiate therapies even in the surgical theater to prevent complications and minimize adverse events resulting from the acute inflammatory reactions of the body in response to surgical trauma. In this context, the use of taping—a sticky elastic tape—stands out, as it can act on the skin's mechanoreceptors and help reduce the effects of the local inflammatory reaction. **Methodology:** This is a case series study in which one group of participants received taping application on the breast region immediately after reconstructive surgery, while another group received only guidance without any intervention. Seven days post-surgery, the participants with taping had the tapes removed, and both groups were asked to evaluate their perception of pain, swelling, and discomfort during the postoperative period using the Visual Analog Scale (VAS). VAS scores range from 0 to 10, where 0 indicates no perception of the analyzed symptom — pain, swelling, or discomfort — and 10 indicates the maximum perceived level by the participant. For this analysis, descriptive statistical methods were employed; lower values closer to zero represent milder symptoms, while higher values closer to 10 indicate more severe symptoms. The study has been approved by the Research Ethics Committee (REC) of the Porto Alegre Clinical Hospital (Certificate of Presentation for Ethical Review – CAAE 67163523.6.0000.5327) and registered in the Brazilian Registry of Clinical Trials – ReBEC (RBR-6g85ff9). **Conclusion:** The descriptive results suggest a difference in participants' perception of pain, swelling, and discomfort with the application of taping during the postoperative period of breast reconstructive or oncoplastic surgery due to cancer in the region. The variables studied showed lower values in the taping group compared to the non-intervention group, which may indicate a potential benefit of taping in the immediate postoperative period regarding the reduction of pain, edema, and discomfort. The study is ongoing, encompassing additional variables beyond participants' perceptions and involving a larger sample size to reach the final number necessary for classification as a randomized controlled trial. The results presented here are considered a case series and cannot be regarded as conclusive.

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28649 – BREAST MRI IN THE UNIFIED HEALTH SYSTEM (SUS): A THREE-MONTH EXPERIENCE AT THE PORTO ALEGRE CLINICAL HOSPITAL

Augusto Ostermann Magalhães*, Andrea Pires Souto Damin, Angela Erguy Zucatto, Thais Vicentine Xavier, Paula Nunes Merello

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Introduction: Magnetic resonance imaging (MRI) of the breasts is an important tool for screening and diagnosing breast pathologies, being considered the most sensitive exam for breast cancer, superior to clinical examination, mammography, and ultrasound, with variable specificity. Although the method has great potential, due to its high cost and low availability, it remains an underutilized exam within the Unified Health System (SUS). Thanks to its high spatial resolution, multiplanar capability, and excellent tissue contrast, MRI can be used in the evaluation of various breast conditions. Another benefit of its use is the absence of ionizing radiation exposure to the patient. Its indications are well established, and routine use is not recommended. Current indications include screening in high-risk patients for breast cancer, inconclusive imaging on conventional exams, evaluation of multifocal/multicentric disease, assessment of implants, and post-neoadjuvant chemotherapy evaluation. Among these, screening high-risk populations for the development of breast cancer stands out as the indication with the strongest scientific support. Understanding these indications thoroughl y and requesting MRI judiciously and evidence-based is essential for good practice in Mastology. In this study, we analyzed the main indications and the profile of patients who underwent breast MRI at the Porto Alegre Clinical Hospital (HCPA) during a quarter of 2023. **Methodology:** This is a cross-sectional study. The indications and profile of patients who underwent breast MRI between August and November 2023 were analyzed, representing the initial period of implementation of the exam in the Mastology Department at HCPA. **Conclusion:** In summary, there is well-established evidence supporting the use of breast MRI both for screening and diagnosing a variety of breast pathologies. However, this exam remains underutilized in our country due to limited access and lack of awareness about its appropriate indications. It is essential to understand its indications well and request the examination judiciously, as, despite its high sensitivity, the probability of false positives is also increased. In this study, we observed that, consistent with the most current evidence, the main reason for ordering the exam at HCPA's Mastology Department was screening in high-risk populations. Additionally, it is crucial to have a well-trained team of radiologists with expertise in breast imaging for accurate interpretation of the method. Furthermore, expanding and integrating breast MRI into the SUS is of utmost importance to ensure comprehensive and inclusive care for this portion of the population.

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28619 – MALIGNANT TUMOR OF THE PERIPHERAL NERVE SHEATH INDUCED AFTER RADIOTHERAPY FOR BREAST CANCER: A CASE REPORT AND THERAPEUTIC APPROACH

Bianca Ceratti Zardo*, Alexandre Pedroso de Albuquerque Olmedo, Andrea Barlezze, Alan Azambuja, Ruben Rodriguez

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Introduction: We present the case of patient I.R., a 69-year-old woman, who was diagnosed with invasive ductal carcinoma of the breast in June 2014. She underwent breast-conserving surgery, radiotherapy, and hormone therapy. After nine years, magnetic resonance imaging revealed a mass in the thoracoabdominal region. Subsequent examinations identified a solid nodule in the right breast. A biopsy diagnosed a spindle cell neoplasm. In June 2023, she underwent a right mastectomy with chest wall reconstruction. The pathological examination revealed a malignant tumor of the peripheral nerve sheath induced after radiotherapy for breast carcinoma. The patient is currently in regular follow-up. This case report highlights the rarity of malignant tumor of the peripheral nerve sheath induced after radiotherapy and emphasizes the importance of proper histopathological evaluation, immunohistochemistry, and DNA methylation profiling (MethylSarc) for an accurate diagnosis. Additionally, we describe the therapeutic approach used, which involved radical mastectomy with breast reconstruction. Further studies are needed to better understand this rare entity and to evaluate the effectiveness of the available treatment options. **Methodology:** Case report and literature review. **Conclusion:** Further studies are required to better understand this rare entity and to evaluate the most effective therapeutic options available. The advent of new targeted chemotherapy agents may soon provide options for neoadjuvant therapy in locally advanced cases, adjuvant therapy in high-risk recurrence cases, and palliative treatment for metastatic disease.

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28565 – MANAGEMENT OF RAYNAUD'S PHENOMENON DURING BREASTFEEDING: A CASE SERIES

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Introduction: Raynaud's phenomenon (RP) is a transient, recurrent, and reversible constriction of the peripheral blood vessels. It has a global prevalence of 3%–20% in women, particularly during their reproductive years, and can manifest in the vessels of the nipple during breastfeeding. It typically presents with skin pallor, followed by cyanosis and erythema. This process can be triggered by a physiological response to cold, emotional stress, or even symptoms of an underlying disease. Differential diagnoses include pathological breast engorgement, atopic dermatitis, allergic dermatitis, nipple trauma, and mastitis secondary to *Staphylococcus aureus* or *Candida albicans*. Because there is often a lack of awareness and correlation between Raynaud's phenomenon and breastfeeding pain, this condition is frequently diagnosed late, leading to consequences such as the discontinuation of lactation. **Methodology:** A retrospective review was conducted, analyzing medical records of patients over 18 years of age attended at the Mastology outpatient clinic of the Mackenzie Evangelical University Hospital of Paraná from January 2023 to January 2024. Patients with chronic breast pain (lasting longer than four weeks) during lactation and at least two of the following criteria were selected: (1) changes in nipple color, mainly with exposure to cold (white, blue, or red); (2) sensitivity to cold or color changes in the hands or feet upon cold exposure; (3) failure to respond to oral antifungal therapy. Excluded from the study were individuals unable to understand the free and informed consent form, those under 18 years old, individuals diagnosed with breast pain from other causes, and those who did not meet the necessary criteria. Data were collected regarding age, ethnicity, clinical presentation, duration of breastfeeding, prior treatment with oral antifungals for nipple candidiasis, comorbidities, medication use, previous breast surgeries, parity, obstetric and family history, history of similar symptoms in the extremities of the feet and hands, and exposure to smoking. All patients signed the informed consent form for the study. **Conclusion:** Because it is a multifactorial condition, Raynaud's phenomenon should be included as a differential diagnosis for patients experiencing breast pain during breastfeeding, allowing for early diagnosis and appropriate treatment.

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28606 – ASSOCIATION BETWEEN NEUROFIBROMATOSIS TYPE 1 AND BREAST CANCER: A CASE REPORT AND LITERATURE REVIEW

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Introduction: Neurofibromatosis type 1 (NF1), also known as von Recklinghausen's disease, is an autosomal dominant disorder characterized by the development of benign tumors of the peripheral nerves, known as neurofibromas. NF1 is caused by mutations in the NF1 gene, which encodes a protein called neurofibromin that regulates cell growth and proliferation. It is also known that individuals with NF1 have an increased risk of developing certain types of cancer, including breast cancer. **Methodology:** A systematic review of the literature was conducted using electronic databases, including the United States National Library of Medicine (PubMed), Scopus, and Embase, to identify relevant studies. The search terms included "Neurofibromatosis type 1," "breast cancer associated with genetic mutations," and "genetic neoplasms." Studies were included if they reported data on the association between NF1 and breast cancer or other neoplasms. The quality of the included studies was assessed using predefined criteria, and relevant data were extracted and analyzed. The studies encompassed a diverse range of populations and methodologies, including meta-analyses, literature review articles, case-control studies, cohort studies, and population-based cancer registry data. A total of 55 articles were selected. **Conclusion:** In conclusion, the association between neurofibromatosis type 1 and breast cancer represents a significant clinical challenge that warrants attention from both healthcare professionals and medical specialists. The link between NF1 and breast cancer requires further investigation to better understand the underlying mechanisms and potential implications for treatment outcomes. This clinical case illustrates the association between NF1 and an increased risk of breast cancer, as well as other neoplasms. This literature review, featuring important studies and authors and illustrated by this report, aims to clarify the connection between these two conditions, highlighting the complex interaction of genetic, molecular, and environmental factors. Genetic mutations in the NF1 gene, dysregulation of cellular pathways, hormonal factors, family history of cancer, and the presence of neurofibromas all play a role in increasing the risk of breast cancer in individuals with NF1. Understanding the underlying mechanisms of this association is crucial for developing effective prevention and treatment strategies for NF1 patients at elevated risk of breast cancer. Furthermore, breast cancer treatment in this population remains poorly defined. Patients with neurofibromatosis type 1 pose not only diagnostic challenges but also a unique surgical challenge for both the patient and the surgeon. Although breast-conserving therapy is an option for treating breast cancer, systemic radiotherapy may theoretically induce secondary radiation-related cancers in NF1 patients. However, given the scarcity of data in this patient population, randomized clinical trials are necessary to better elucidate optimal management strategies and the safety of surgical treatments in this group. Deepening our understanding of this association, improving outcomes for affected patients, and developing targeted interventions through a multidisciplinary approach involving mastologists, oncologists, and geneticists aim to reduce the risk of breast cancer in this population. Despite these findings and the classification of NF1 patients as high-risk individuals, current guidelines do not provide specific recommendations regarding screening programs for this category of patients.

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28603 – MIXED BREAST CARCINOMA: A DIAGNOSTIC CHALLENGE

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Introduction: The diagnosis of mixed breast cancers, with lobular and ductal characteristics, presents significant clinical challenges. These tumors, known as invasive lobular carcinoma with ductal component (ILC-DC), are characterized by a combination of lobular and ductal lesions. Accurate identification of these tumors is essential for proper treatment planning and prognosis. In this case report, we will discuss the diagnosis and treatment of a patient with mixed breast carcinoma. **Methodology:** For this integrative systematic review, searches were conducted in scientific bases such as the United States National Library of Medicine (PubMed), Cochrane Library, Scopus, and Web of Science. The search strategy focused on identifying relevant published studies using the terms "lobular and ductal breast carcinoma" and "mixed lobular and ductal breast cancer." Articles published in both English and Portuguese that directly addressed the topic of mixed lobular and ductal breast carcinoma and the diagnostic challenges associated with this type of cancer were selected. **Conclusion:** The diagnosis and treatment of mixed breast tumors with lobular and ductal characteristics continue to pose challenges in clinical practice. Awareness of this rare entity is essential to ensure appropriate therapeutic approaches and a better understanding of its biology. Conducting clinical studies and translational research is necessary to improve the diagnosis and treatment of these tumors. The results of this case report contribute to the current knowledge of mixed breast carcinoma and may help guide clinical practice.

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28609 – MAMMARY MYOFIBROBLASTOMA: A CASE REPORT AND LITERATURE REVIEW

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Introduction: Mammary myofibroblastoma is a rare benign mesenchymal tumor of the breast. In 1981, Toker et al. reported four cases of benign stromal breast tumors with morphological features similar to fusiform cell lipoma of soft tissues and named them as benign fusiform tumors of the breast. It was later, in 1987, that the term myofibroblastoma was coined by Wargotz to describe a tumor characterized by proliferation of fusiform cells with myofibroblastic differentiation within an abundant collagenous stroma. Although typically benign, myofibroblastomas can present a wide range of clinical and histological features, making their diagnosis and management challenging for clinicians. **Methodology:** For this integrative systematic review, searches were conducted in scientific databases including the United States National Library of Medicine (PubMed), Embase, Cochrane Library, Scopus, and Web of Science. The search strategy focused on identifying relevant published studies using the terms "myofibroblastoma of the breast" and "benign mesenchymal neoplasms of the breast." A total of 19 articles published in English, Spanish, and Portuguese were selected. **Conclusion:** Breast myofibroblastoma is a rare benign tumor of the breast that primarily affects middle-aged women. Although it typically presents as a painless mass, diagnosis requires histopathological examination. The results obtained so far indicate that breast myofibroblastoma is challenging to differentiate from other benign and malignant lesions. Surgical excision with clear margins is curative, and the prognosis is generally excellent. Further research is needed to better understand the underlying molecular mechanisms of this tumor and its long-term outcomes.

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28630 – BRCA2 MUTATION IN A FAMILY AND ASSOCIATED TUMORS: A CASE REPORT

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Introduction: Breast cancer is one of the leading causes of mortality among women worldwide. Genetic mutations play a significant role in the development and progression of breast cancer, with BRCA1 and BRCA2 mutations being the most common hereditary risk factors. **Methodology:** The search for articles was conducted across several academic databases, including the United States National Library of Medicine (PubMed), Cochrane Library, Scopus, Web of Science, and the Latin American and Caribbean Center on Health Sciences Information (Bireme), using the search terms "BRCA2 mutation" and "breast cancer." The inclusion criterion for selecting articles was: original studies investigating the association between BRCA2 mutation and cancers. Articles published in English or Portuguese that directly addressed the topic were selected. **Conclusion:** In conclusion, BRCA2 mutation is associated with an increased risk of various types of cancers, including breast cancer. Early identification of the mutation can aid in prevention and treatment, contributing to a more effective and personalized approach. This case report highlights the clinical progression of a family carrying the BRCA2 mutation with multiple tumors affecting different organs. The importance of genetic testing, meticulous surveillance, and personalized treatment is emphasized, as these can have a significant impact on early detection, disease management, and prognostic outcomes for patients with hereditary breast cancer. The presented case warrants further research and underscores the need for multidisciplinary approaches in caring for high-risk individuals.

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28567 – THE STAGING OF BREAST CANCER IN PATIENTS AGED 40 TO 50 YEARS ATTENDED BETWEEN 2015 AND 2019 AT THE UNIVERSITY OF VALE DO ITAJAÍ AND A PRIVATE CLINIC IN THE SOUTHERN REGION OF THE COUNTRY.

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Introduction: Breast cancer is the leading cause of cancer-related death among Brazilian women. Screening, in turn, involves performing mammograms aimed at reducing mortality and improving the quality of life for diagnosed women. However, contrary to the guidelines of the Brazilian Ministry of Health, the Brazilian Society of Mastology recommends that the exam be performed starting at age 40 and annually. In this context, in accordance with the medical society, the Itajaí Health Department expanded the age group for screening in 2022. **Methodology:** For this purpose, the proposed methodology is a retrospective, descriptive, observational study with a quantitative approach, conducted through analysis of medical records stored in a database. The study includes female patients who had/have breast cancer and were/are monitored at the Family and Community Health Unit of the University of Vale do Itajaí – UNIVALI (USFC UNIVALI) and in a private clinic, in the municipality of Itajaí, Santa Catarina, Brazil. This study was approved by the UNIVALI Research Ethics Committee, approval number: 5.625.664, Certificate of Presentation for Ethical Review – CAAE: 61508522.0.0000.0120. A total of 187 patients diagnosed with breast cancer were selected, following predefined criteria, between January 2015 and December 2019. From this selection, the following variables were collected and analyzed: year of diagnosis, age group, finding of breast alteration (clinical or screening), and staging, which includes the following elements: tumor size, axillary involvement, and distant metastasis. **Conclusion:** The study concluded that women who had access to early screening presented smaller lesions, a lower incidence of axillary involvement, few cases of distant disease, and less advanced stages. Therefore, given the equity provided by the municipality of Itajaí in offering annual screening to all women aged 40 or older starting in 2022, it is expected, based on studies and examples from developed countries, a reduction in breast cancer mortality rates, increased survival, and the adoption of less invasive treatments. These findings emphasize the importance of broad access to early screening for all women within the Brazilian context, thus contributing to women's survival.

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28592 – FACTORS ASSOCIATED WITH SURVIVAL IN PATIENTS WITH TRIPLE-NEGATIVE BREAST CANCER

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Introduction: Triple-negative breast cancer (TNBC) accounts for 15%–20% of breast cancer cases. The most affected population includes young women and women of African descent, who tend to have a poorer prognosis and survival due to the tumor's aggressiveness. Given the lack of molecular targets in this group, the standard treatment remains cytotoxic chemotherapy. However, immunotherapy has shown benefits in larger tumors and cases with positive axillary lymph nodes. **Methodology:** An observational, retrospective, and descriptive study was conducted, analyzing data from medical records of patients diagnosed with triple-negative breast cancer between 2008 and 2023 at a private oncology clinic located in the city of Teresina (PI). This study is part of a research project on cancer patients approved by the Research Ethics Committee of the State University of Piauí (CEP-UESPI); approval number: 4.311.835. **Conclusion:** In the present study, the main factors associated with prognosis were the presence of metastasis, axillary involvement, recurrence, and mutations.

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28598 – THE USE OF BLUE DYE ALONE FOR SENTINEL LYMPH NODE BIOPSY AFTER NEOADJUVANT CHEMOTHERAPY IN PATIENTS WITH INITIALLY NODE-POSITIVE BREAST CANCER

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Introduction: Sentinel lymph node biopsy (SLNB) is the gold standard for the evaluation of the axilla in upfront surgery for non-metastatic breast cancer, with a similar recurrence rate and lower morbidity compared to axillary dissection, despite a false-negative rate of around 10%. In patients who underwent neoadjuvant chemotherapy (NACT) and who had initially negative axilla (cN0), the false-negative rate is similar to that found with upfront surgery. Conversely, in patients with non-metastatic breast cancer and initially positive axilla at first presentation (cN1/2) and who achieved complete clinical and imaging response, false-negative rates have traditionally tended to be higher. Recently, studies have indeed shown that the false-negative rate of SLNB following NACT is high (>10%) in cases of cN1/2 at first presentation. However, rates would decrease when certain strategies were used, such as clipping the lymph node prior to NACT and then resecting the clipped node; identifying and removing three or more sentinel lymph nodes (SLN); and using a dual tracer of technetium-99 and blue dye to facilitate identification of the lymph nodes. Those studies changed clinical practice, with international guidelines now recommending the use of these strategies to minimize false-negative rates. **Methodology:** This retrospective, observational cohort study was conducted with cT1-4 cN1/2 patients with non-metastatic breast cancer. All patients underwent NACT at a public healthcare facility in Brazil between 2013 and 2023. Patients with inflammatory breast cancer, those with cN0 or cN3 at first presentation, and cases for which data in the hospital records were incomplete were excluded from the study. All the patients who achieved complete clinical response following NACT (ycN0) underwent SLNB using a single tracer (blue dye) without axillary dissection if the SLN was negative (ypN0) at frozen section and confirmed at final pathology. For evaluation of the principal objective, patients who remained cN1/2 following NACT were also excluded from the analysis, as were those who underwent SLNB and in whom the SLN remained positive (ypN+) at final histopathology. The internal review board of the Fortaleza General Hospital, an institute that provides healthcare within the public healthcare network, approved the study protocol prior to its initiation under reference Certificate of Presentation for Ethical Appreciation — CAAE 42697221.8.0000.5040.2. Clinical evaluation and treatment. The patients with clinically positive axilla were diagnosed through ultrasound-guided percutaneous axillary lymph node biopsy. In cases in which there was a strong clinical suspicion in addition to abnormal axillary findings at ultrasound, diagnosis was made without biopsy. Mammography and ultrasound of the axilla were performed prior to and following NACT in all cases, while magnetic resonance imaging of the breasts could be performed or not. Neoadjuvant and adjuvant treatment of non-metastatic breast cancer (either systemic treatment or radiotherapy) was conducted according to international guidelines. None of the patients in the study used trastuzumab emtansine as adjuvant treatment, since this was not available within Brazil's public healthcare system up to the cut-off date for this study. The use of dual anti-ERBB2 therapy (receptor Erb-B2, tyrosine kinase 2 [formerly HER-2], human epidermal growth factor receptor 2) as neoadjuvant therapy is also not universally available within the public sector; however, trastuzumab can be recommended as routine. The decision regarding whether to perform breast-conserving surgery or mastectomy was made at the discretion of the surgical team. The histological subtypes of non-metastatic breast cancer were also recorded, together with the patient's age, initial tumour stage (T1, T2, T3 or T4), initial clinical lymph node status (N1 or N2) and immunohistochemical subtypes: hormone receptor-positive/ERBB2-negative, hormone receptor positive/ERBB2-positive, hormone receptor-negative/ERBB2-positive and triple-negative (absence of hormone receptors and ERBB2). 2.2 Description of the SLNB technique. The tracer, blue dye alone (Patent Blue V sodium 2.5%), was applied by intradermal injection (1–4 points) into the breast (1–2 mL), in the periareolar region or in the upper lateral quadrant, following general anaesthesia. Massage was performed at the site of the injection for at least 1–2 minutes. The occurrence of side effects associated with blue dye, particularly

severe allergic reactions (grade III and IV), was evaluated. A separate incision was made into the axilla to identify the SLN except in cases of simple mastectomy without reconstruction. No minimum number of SLN to be identified and resected was pre-established. Briefly, a negative SLN at frozen section analysis, confirmed at final histopathology, was sufficient to avoid axillary dissection. The median number of SLN resected was analysed. Palpable lymph nodes other than the SLN were only resected if metastasis was suspected. Immunohistochemistry of the SLN was not routinely performed except when required to confirm indeterminate results. All patients with residual disease in the SLN underwent axillary dissection, including those whose diagnosis was made at final histopathology, irrespective of the extent of the metastasis (isolated tumour cells, micro- and macro-metastases). 2.3. Outcome evaluation. The principal oncologic outcomes evaluated were: axillary recurrence, defined as any recurrence in the ipsilateral axilla; lymph node recurrence, which includes recurrence in the axilla and supraclavicular fossa or internal breast; ipsilateral breast recurrence; new primary contralateral; distant recurrence; and death. Follow-up was measured from the time of SLNB surgery. The likelihood of undergoing SLNB alone or axillary dissection was evaluated according to immunohistochemical subtype, initial tumour stage (cT3/T4 versus cT1/2) and axillary lymph node status (cN2 versus cN1). 2.4 Statistical analysis. Categorical data were described as absolute and relative frequencies, while medians and interquartile ranges were used to describe patients' age and the number of SLN removed. Disease-free and overall survival rates were calculated using the Kaplan-Meier method. To evaluate factors associated with undergoing SLNB alone, Poisson models with robust estimation of variance were used to calculate relative risk. Factors with p-values <0.20 in the univariate analysis were included in the multivariate analysis. Only factors with p-values <0.05 remained in the final model. Analysis was performed using the R software, version 4.2.2. **Conclusion:** Performing SLNB using blue dye alone following NACT in patients with initial cN1/2 who achieved complete clinical and imaging response proved feasible according to this analysis, with no axillary recurrence. It would therefore appear to represent a suitable option in institutes with limited access to resources. Results from studies with longer follow-up times, particularly randomized clinical trials, are required to validate these findings.

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28546 – HEALTH EQUITY: THE TRANSFORMATIVE IMPACT OF TELEPHONIC TELECONSULTATION ON VULNERABLE POPULATIONS WITH BREAST CANCER

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Introduction: Telemedicine is a powerful tool for promoting health access equity, reducing geographical and financial barriers. It enables access to care without costly travel for low-income populations. By lowering costs and expanding the reach of healthcare services, this tool emerges as a vital instrument in promoting one of the fundamental principles of the Brazilian Unified Health System. The impact of implementing a protocol for remote consultations in a vulnerable population with breast cancer is particularly significant, as patients require multiple hospital visits throughout their long treatment journey. **Conclusion:** This inclusive intervention, with a social impact and a high level of patient satisfaction, proved to be relevant for low-income oncology populations with limited access to technology.

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28641 – BATWING TECHNIQUE IN BREAST ONCOPLASTIC SURGERY: A BIBLIOGRAPHIC REVIEW

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Introduction: In the context of breast oncologic surgery, the major advantage of the oncoplastic approach lies in embracing the medical principle of *primum non nocere*, aligning with the needs for breast conservation and aesthetic outcomes in oncologic treatment. This approach expands surgical options, reduces the rates of mastectomy, and helps prevent deformities. The initial record of oncoplastic surgery dates back to Grisotti's publication in 1994, which reported that approximately 15% of patients experience poor aesthetic results after purely conservative surgery—outcomes influenced by factors such as the extent of excision relative to breast size, tumor location, and the effects of radiotherapy. In this scenario, there arises a need to seek the best functional and aesthetic results in the primary surgical procedure. With the consolidation of oncoplastic surgery within the range of oncologic surgical interventions, various techniques have been developed to achieve adequate tumor excision while avoiding excessive tissue removal that could lead to deformities. Among the most common oncoplastic techniques are elliptical segmentectomy incision, circum-areolar approach for segmental resection, progressive mastopexy, batwing (or bat wing) technique, hemibatwing, donut mastopexy/round-block, bilobed excision, central quadrantectomy, triangular incision, inframammary incision, and reduction mastopexy. Among these techniques, the batwing stands out as a suitable approach for excising cancers located in the upper or central quadrants of the breast, due to its short operative time, low complication rate, good applicability across different breast profiles, minimal dissection and remodeling requirements, low delay for adjuvant treatment, and favorable aesthetic outcomes, with high patient satisfaction. In this context, an integrative bibliographic review of the topic Batwing Oncoplastic Surgery was conducted, based on data collected from studies published in the last 15 years (2008–2023) in the United States National Library of Medicine database (PubMed). **Methodology:** This is an integrative review study, with data collection carried out through a bibliographic survey to achieve the proposed objectives, based on the examination of relevant research to the theoretical foundation, identified and analyzed through published evidence related to the topic Batwing Oncoplastic Surgery. The study in question is a literature review of an integrative type, with a qualitative approach. For the continuation of this study, the following steps were followed: a) definition of the topic; b) formulation of the guiding question; c) search for descriptors; d) database research; e) establishment of inclusion and exclusion criteria for articles; f) evaluation of information extracted from the selected articles; g) discussion of the results; and finally, h) compilation of the review. For the foundation, the following guiding question was posed: What information is available about the oncoplastic breast surgery technique Batwing? The search for studies was conducted in January 2024 through the United States National Library of Medicine database (PubMed), using the keywords: "oncoplastic" AND "breast surgery batwing technique." The inclusion criteria were: full text available; languages: English, Spanish, and Portuguese; published within the last 15 years. For exclusion, the following criteria were used: articles outside the specified time frame, duplicates, coursework papers, or studies that did not address the guiding question. **Conclusion:** The literature review reveals that breast oncoplasty is becoming a fundamental part of breast cancer treatment. This approach allows surgeons to perform extensive tumor resections without compromising aesthetic outcomes, prioritizing both tumor removal and cosmetic results. Given the variety of surgical techniques available, it is crucial to consider the patient's profile, lesion characteristics, systemic conditions, comorbidities, healing capacity, breast volume, and tumor location to identify potential risk factors for surgical complications. A key principle in any breast reduction procedure is preserving vascular supply to the areola–nipple complex and the remaining breast tissue. Therefore, planning the skin incision is the first and most critical step, tailored to the tumor's location. Considering these principles, the Batwing technique stands out as it is recommended for lesions located in the upper and central quadrants, and is also applicable to deep or adjacent tumors near the areola–nipple complex. This approach is favored due to its shorter surgical time, lower tissue dissection, and highly satisfactory aesthetic results, positioning it as a major advantage among oncoplastic surgical options.

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28597 – INTEGRATIVE REVIEW: RISK FACTORS AND COMPLICATIONS OF BREAST ONCOPLASTIC SURGERY

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Introduction: The surgical treatment of breast cancer was initiated with Halsted's radical mastectomy in 1984. Since then, it has been refined over the years, and in 1981, Veronesi et al. published a study that enabled the standardization of breast-conserving oncological surgeries. In this context, breast oncoplastic surgery was first described in 1994 and has since spread worldwide, being considered a relatively modern approach in breast cancer treatment, combining oncological surgical techniques with plastic surgery methods to achieve better aesthetic outcomes after tumor resection. Based on the principle that oncological guidelines should not be compromised and always take precedence, oncoplastic surgery has been increasingly established as a surgical approach in the treatment of breast cancer, providing patients with greater satisfaction and quality of life due to more aesthetic surgical outcomes. However, it is essential to provide greater clarification regarding the risk factors and complications associated with this therapy. **Methodology:** This is an integrative literature review. The search for studies was conducted in September 2023 in the Medical Literature Analysis and Retrieval System Online (Medline) database, provided by the U.S. National Library of Medicine (PubMed). The following keywords and their combinations were used in Portuguese and English: "oncoplastic," "breast surgery," "oncoplastic risk factors," and "complications. The inclusion criteria defined for the selection of articles were: clinical trial, meta-analysis, random controlled trial, and systematic review with abstract availability. The articles were searched in Portuguese, English, and Spanish, published between 2019 and 2023. **Conclusion:** When it comes to therapeutic intervention for breast cancer, it is essential to consider the patient's perception of surgical risk, their expectations of outcomes, and their life expectancy. The surgical decision regarding which procedure to perform should be made collaboratively between the doctor and the patient, following an appropriate discussion about the risks and benefits, taking into account clinicopathological factors. It is crucial to provide a comprehensive understanding of the potential risks associated with each procedure, ensuring that choices are informed and personalized for each patient. As surgical interventions evolve in accordance with oncological guidelines, patient preferences, and modern reconstructive options, it becomes imperative to determine and recognize the inherent complication rates of the procedure. This article summarized the main risk factors and complications associated with oncoplastic breast surgery, which should be considered during patient counseling. Although oncoplastic surgery is a safe procedure for most cases, caution should be exercised when performing it in patients with class 2 or 3 obesity (BMI ≥ 35 kg/m^2), advanced age, prior radiotherapy, or diabetes, due to a higher rate of general and specific complications in this population. Careful patient selection and the most appropriate surgical technique should be considered to minimize complications and ensure low rates of local recurrence. Clear communication at all stages — from decision-making to surgery and recovery — is essential to achieve outcomes that meet patients' needs and expectations. This review highlighted the scarcity of well-conducted studies on evaluating patients with risk factors and complications. Additional research is recommended to thoroughly investigate important risk factors and provide more robust evidence for surgical decision-making.

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28588 – CLINICAL PROFILE OF BREAST CANCER CASES IN WOMEN UNDER 50 YEARS OF AGE TREATED AT A REFERRAL CENTER

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Introduction: Breast cancer is the most diagnosed neoplasm worldwide and the leading cause of cancer-related mortality among women. In Brazil, an estimated 244,000 cases of cancer are expected among women in 2023, of which approximately 15% are breast cancer. Chronological age is a key factor in chronic diseases such as cancer. Genetic family mutations, early menarche, use of oral hormonal contraceptives, first childbirth after age 30, and lack of breastfeeding are associated with a higher risk of breast cancer in younger women. Early diagnosis is crucial for effective treatment, highlighting the importance of early screening, which involves periodic mammography. In Brazil, the Ministry of Health recommends mammography every two years for women aged 50 to 69, while the Brazilian Society of Mastology (SBM) and the Brazilian Federation of Gynecology and Obstetrics Associations (FEBRASGO) recommend annual screening starting at age 40 for women at average risk. **Methodology:** The is a descriptive study with a quantitative, retrospective, and cross-sectional approach, conducted at a referral service for breast cancer cases in the municipality of Fortaleza after approval by the institution's Ethics Committee (Certificate of Presentation for Ethical Review – CAAE: 68802823.0.0000.5050). The population was defined by all recorded cases of breast cancer at the service from January 2020 to December 2022. All patients under 50 years of age at the time of histological diagnosis who had maintained follow-up at the service were included. Cases with loss to follow-up or transfer to another service were excluded. Information regarding the patient's personal characteristics was collected: age at diagnosis, body mass index, age at menarche, parity, history and duration of breastfeeding, use of contraceptive methods, personal and family history of breast or ovarian cancer, presence of genetic mutation, clinical staging — initial disease prognosis — and immunohistochemical classification. After collection, the data were organized into tables using Microsoft Excel, and descriptive statistics were performed on the variables studied. **Conclusion:** Breast cancer is a global public health issue due to its high morbidity and mortality worldwide. Early screening is essential for disease detection in order to provide appropriate treatment, which should be performed through mammography. This work analyzes the diagnosed cases of breast cancer in the population under the age recommended for mammography screening by the Brazilian Unified Health System (SUS), highlighting the need for attention to this population group.

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28622 – VACUUM-ASSISTED BIOPSY AS A DIAGNOSIS OF LOW-RISK DUCTAL CARCINOMA IN SITU (DCIS) WITH PROGRESSION POTENTIAL AND SUBSEQUENT ACTIVE SURVEILLANCE

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Introduction: The treatment of breast cancer has evolved from radicalization and broad application — such as radical mastectomy for all cases — to personalized and de-escalation approaches, targeted therapies, and conservative surgery. Likewise, the diagnosis of breast cancer has progressed from diagnostic surgery and incisional biopsies to minimally invasive percutaneous procedures, fine-needle aspiration biopsy (FNAB), and core biopsies. Accurate histological diagnosis is a prerequisite for proper therapeutic planning, aiming to achieve optimal disease control with minimal aesthetic and functional sequelae. While in the past, cytological diagnosis of malignancy (FNAB) was sufficient to initiate treatment, today it is imperative to obtain an accurate histological and immunohistochemical diagnosis. In the era of personalization, precise percutaneous diagnosis of malignancies requiring immediate surgical, systemic, and radiotherapy treatment is imperative. Previously, the differential diagnosis of ductal carcinoma *in situ* (DCIS) of the breast and invasive carcinomas (IC) was a priority. Currently, with the possibility of de-escalation of various therapeutic modalities, a higher level of sophistication is needed. Regarding DCIS and the future possibility of active surveillance for selected cases, it would be especially important to differentiate them into low-risk of progression (DCIS-LR) and high-risk of progression (DCIS-HR). **Methodology:** 1.1. Patient eligibility and study design: The study was approved by the Ethics Committee of Santa Casa de Belo Horizonte under number 25761019.8.0000.5138, and all procedures were conducted in accordance with national guidelines. Written informed consent was obtained from all patients for participation. The dataset used and/or analyzed during this study will be available within a reasonable timeframe upon request to the corresponding author. A total of 1,061 vacuum-assisted biopsies for suspected malignant breast lesions (BI-RADS 4, BI-RADS 5, or lesions with uncertain malignant potential on previous core needle biopsy [B3 lesions]) performed at a dedicated breast diagnostic center in Brazil from 04/13/2017 to 11/28/2020 were analyzed. Patients with benign histology on vacuum biopsy, those with confirmed malignancy who did not undergo primary surgery, or when final surgical pathology was unavailable, were excluded. This resulted in 116 cancers (IC and DCIS) with complete biopsy and surgical data that were included in the analysis. Baseline demographic data were recorded. The imaging data collected included: findings (mass with or without calcifications), image-guided method for VAB (ultrasound/stereotactic), and maximum radiological tumor size (MT). 1.2. Vacuum procedures: All patients underwent diagnostic vacuum-assisted biopsy. Assisted vacuum procedures were categorized as simple vacuum-assisted biopsy (VAB) versus extended (EVAB), when the lesion was completely excised or more than 12 fragments were collected with a 7G needle, or 18 fragments with a 10G needle. The biopsy device (EnCor Enspire™ Breast Biopsy System – BD or Mammotome Revolve™ Dual Vacuum Assisted Breast Biopsy System) and needle gauge used were at the discretion of the operating physician. 1.3. VAB/EVAB pathology: The raw specimens were separated from the clots, measured, weighed, and stained. All fragments were included and sectioned at every four microns. The cases ranged, on average, from one to five paraffin blocks. Tests varied from hematoxylin-eosin (H&E) analysis of the slides, with or without immunohistochemistry (IHC), at the discretion of the pathologist, followed by fluorescence *in situ* hybridization (FISH) and genetic analyses (e.g., Oncotype DX), if indicated. All tissue samples underwent histopathological examination. The maximum pathological tumor size after VAB was defined as the measurement of the largest tumor dimension on the slide of the most involved sample. The histopathological diagnosis of VAB (invasive disease ± DCIS), presence of DCIS with comedonecrosis, biomarker status (ER/PR/HER2/Ki67), tumor morphological type, nuclear grade, and histologic grades were evaluated and recorded. In cases of multicentric tumors or bilateral breast cancers, only the tumor measurements and outcomes of the lesions submitted to VAB were included. In one patient,

two multicentric nodules were subjected to two different procedures, so this case was treated as two separate lesions. 1.4. Surgical pathology: All cases underwent surgical excision following VAB, and radiography of the surgical specimen was performed to confirm the presence of the marker placed during VAB. Macroscopically, the specimens were measured, weighed, and stained. All surgically excised tissue was included for analysis and sectioned every four microns. H&E analysis was performed on the slides, with or without IHC, at the discretion of the pathologist, followed by FISH and genetic analyses (e.g., Oncotype DX), if indicated. The evaluated parameters included: the maximum size of residual tumor in the surgical specimen, the pathological diagnosis (invasive disease±DCIS), presence of DCIS with comedonecrosis, biomarker status (ER/PR/ HER2/Ki67), tumor morphological type, nuclear grade, and histological grade. Sentinel lymph node biopsy (SLNB) was performed according to the practice of the originating facility. Surgical excision after VAB was defined as complete resection (CR) if no residual tumor was present at the time of surgery, minimal residual disease (MRD) if residual tumor was ≤3 mm, gross residual disease (GRD) if residual tumor >3 mm, and "upgrade" from DCIS to invasive cancer if the pathology revealed invasive disease following initial VAB. Needle gauges from 7G to 10G were used. A 7G needle (4.57 mm diameter) provides a fragment weighing about 0.363 g. The 3 mm cutoff for MRD was based on the smallest fragment weighing 0.221 g, provided by a 10G needle (3.5 mm diameter). Thus, residual disease of 3 mm could be easily resected with one or two additional fragments. 1.5. Adjuvant treatment: All patients received adjuvant systemic therapy and radiotherapy according to the Brazilian Guideline for the Diagnosis and Treatment of Breast Cancer issued by the Ministry of Health. 1.6. Diagnostic Test: For the evaluation of the diagnostic test, the pathological results of VAB/EVAB were analyzed separately and together in relation to the surgical pathology, which was considered the gold standard. The pathological diagnoses were grouped into malignancies requiring immediate surgical treatment or with the potential for active surveillance in the future. Lesions indicated for immediate surgical treatment were considered positive and included invasive carcinomas (IC) and high-risk DCIS (DCIS-HR). Lesions with potential for future active surveillance were considered negative and included low- and intermediate-grade DCIS (DCIS-LG and DCIS-IG). DCIS-HR was defined as any high-grade ductal carcinoma ***in situ*** with comedonecrosis. DCIS-LG/IG evolving lesions were defined as low- or intermediate-grade ductal carcinoma in situ without comedonecrosis. 1.7. Statistical analysis: 1.7.1. Descriptive analysis: An initial exploratory analysis was conducted using the Shapiro-Wilk test to determine the normality of the continuous data distribution. For continuous variables, measures of central tendency (mean and median) and dispersion (standard deviation) were calculated. For categorical variables, frequencies and percentages for each category were determined. Considering that most continuous variables exhibited non-parametric distributions, results were presented as medians, minimums, maximums, and interquartile ranges (P25 and P75). Fisher's exact test was used for comparisons between the frequencies observed in each categorical variable. 1.7.2. Evaluation of the diagnostic test: 2x2 contingency tables, containing the results of EVAB/VAB versus surgery (gold standard), were analyzed to assess the association between the results. Sensitivity (S), specificity (E), positive predictive value (PPV), negative predictive value (NPV), and overall accuracy were calculated for each comparison. Fisher's exact test was used for comparisons between the frequencies obtained in each analysis. For the evaluation of the diagnostic test, the ability of VAB/EVAB to diagnose DCIS-HR/IC versus DCIS-LG/IG was compared. Statistical analyses were performed using GraphPad Prism® (GraphPad Software, version 8.0, La Jolla, California, USA, www.graphpad.com) for Windows, the GraphPad QuickCalcs software for detecting potential outlier values, and Stata® (version 14.0, Stata Corporation, College Station, TX, USA). **Conclusion:** Vacuum-assisted procedures (VAB/EVAB), whether alone or combined with clinical, imaging, or immunohistochemical criteria (COMET trial), are not an effective diagnostic method to exclude the presence of high-risk DCIS for progression or residual IC at surgery based on a low-risk DCIS result on biopsy. Active surveillance in a broad context would significantly reduce overtreatment of women with breast cancer by only a small margin (6%), at the expense of potentially undertreating a very low number (1.7%) of patients. However, the oncological safety of active surveillance for patients with low-risk DCIS for progression can only be determined through randomized controlled trials that evaluate this approach, with or without hormonal therapy, to elucidate the natural history of the disease as well as the clinical consequences of underdiagnosed high-risk invasive carcinoma and DCIS for progression.

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28646 – BREAST ADENOMIOEPITHELIOMA: A CASE REPORT

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Introduction: Initially described in the literature by Hamperl in 1970, breast adenomyoepithelioma (AME) is a rare tumor that can mimic other epithelial, myoepithelial, or biphasic lesions of the breast. It is characterized by a dual proliferation of myoepithelial and luminal cells, with variable biological behavior, most of which are benign. In the classification published by the World Health Organization in 2019, AME was defined as an epithelial-myoepithelial lesion of the breast. Malignant transformation of this tumor is a rare event, which can occur in one or both cellular components. There are no specific features on imaging or clinical examination that facilitate diagnosis, often leading to interpretative errors; histological and immunohistochemical analyses are necessary for definitive diagnosis. Mammographic and MRI features are nonspecific and rarely show microcalcifications. Ultrasound typically reveals an oval, hypoechoic, solid mass with irregular borders. Most cases occur in women in their fifth or sixth decade of life but can arise at any age. The differential diagnosis of AME includes a wide spectrum of entities, such as papillary hyperplasia with myoepithelial features, fibroadenoma, phyllodes tumor, adenoma, tubular carcinoma, microglandular adenosis, adenoid cystic carcinoma, pleomorphic adenoma, and mesenchymal stromal proliferations. Immunohistochemical findings aid in establishing the correct diagnosis. Treatment consists of wide surgical excision due to the risk of local recurrence. Here, we report an uncommon case of a young woman with a palpable, benign breast adenomyoepithelioma. **Methodology:** Descriptive study. Case report. **Conclusion:** Breast adenomyoepithelioma (AME) is a rare condition that can pose diagnostic challenges, both regarding imaging findings, due to their nonspecific nature, and the need for immunohistochemistry for definitive diagnosis. Management of AME is not guided by clear protocols given the rarity of cases, but a literature review has shown that wide surgical excision with clear margins is sufficient for benign forms, which constitute the majority of cases, including our report.

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28564 – NON-BREAST DISEASES MIMICKING BREAST CONDITIONS: A CASE REPORT

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Introduction: Neoadjuvant chemotherapy (NAC), traditionally used for locally advanced disease, is currently applied to patients with early breast cancer (BC) of aggressive subtypes (HER-2-positive and triple-negative). BC remains one of the leading causes of mortality among women worldwide, requiring innovative therapeutic approaches to improve treatment outcomes. NAC has emerged as a promising strategy, particularly for aggressive breast cancer types, offering the potential to reduce tumor size before surgery. This study focuses on evaluating pathological complete response (pCR) after NAC at a public referral center in Brazil, exploring its association with overall survival (OS) and disease-free survival (DFS). **Objectives**: This study aims to characterize pCR and its relationship with OS and DFS among BC patients who received NAC at a Brazilian public referral center, as well as the association between pCR and BC subtypes. **Methodology:** This study utilized a retrospective cohort based on Real-World Data (RWD) from a referral center for the treatment of women's cancers in Brazil (Hospital Pérola Byington - HPB). Since it involved analysis of the institution's secondary database, the present study was approved by the ethics committee. The recommendations of ISPE/ISPOR were followed for the development of an exploratory real-world study. Data from women diagnosed and treated in the referred healthcare setting between January 2011 and December 2020 were considered for this study. The study was submitted to and approved by the HPB Research Ethics Committee (approval number: CAAE 39097520.4.2001.0069). **Results:** Our cohort consisted of 1,601 individuals, of whom 364 (22.7%) achieved pCR (ypT0 ypN0). Patients who achieved pCR showed significantly higher OS rates (89% vs. 61%, $p<0.001$) and better DFS (90% vs. 66%, $p<0.001$), except in the luminal A subtype, in which pCR was not correlated with improved OS or DFS. Conclusion: Our study demonstrated that data on pCR rates in patients undergoing NAC for BC in real-world settings are consistent with clinical trial data, and that pCR was associated with increases in OS and DFS in a RWD study. Additionally, it showed that despite limited access to appropriate treatments for HER-2+ and TNBC patients, and given that pCR rates for these subtypes were lower than those reported in randomized clinical trials, the OS and DFS of patients with pCR were still better.

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28627 – IMAGING APPROACH TO MALE BREAST DISEASE: A RETROSPECTIVE ANALYSIS OF AN IMAGE DATABASE FROM A CLINIC IN BELO HORIZONTE

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Introduction: Male breast exhibits some atypical conditions, similar to female breast. Findings in imaging diagnosis of female breast are well-established with appropriate management guidelines for each finding. Concerning findings in the male breast, breast symptoms are often neglected, and routine complementary imaging exams are not always performed. Recent epidemiological studies show that over the past 20 years, the number of men reporting breast discomfort has increased worldwide. The imaging approach to male breasts has become a topic of debate due to the rising prevalence of breast complaints among men. **Methodology:** This is a retrospective analysis conducted through the study of data stored in the EXA and VitaClin applications, selecting only male patients, and identifying and quantifying the main alterations of the male breast at Redimama Clinic, from December 3, 2019, to February 9, 2024. It is proposed that the use of an informed consent form be waived for the electronic medical record search related to the frequency of male breast cases during the study period. The statistical frequency analysis of the electronic medical record data was performed using Excel. The obtained data were compared with current literature on male breast pathology. Following the scope review guidelines, a search was conducted across three electronic databases published after 2009, in English and Portuguese: the U.S. National Library of Medicine (PubMed), Cochrane, and Scientific Electronic Library Online (SciELO). **Conclusion:** Although most male breast alterations are benign, with gynecomastia being the most common etiology, some clinical findings do not allow for differentiation between benign and malignant conditions. Regardless of imaging tests, when suspicious clinical findings are present, performing specific diagnostic evaluation is essential for accurate diagnosis. Mammography is recommended as the initial exam, regardless of patient age. This recommendation is based on the importance of early diagnosis to ensure appropriate treatment and improve the patient's prognosis. The results of this study, which include the analysis of 243 imaging exams conducted over a period of 50 months, support existing literature on male breast alterations. Thus, these findings reinforce the importance of imaging in evaluating breast changes in men and highlight the need for increased awareness of male breast health.

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28599 – BREAST RECONSTRUCTION WITH LATISSIMUS DORSI MUSCLE FLAP LIPOINJECTED ASSISTED BY INDOCYANINE GREEN AND SPY-PHI: A CASE REPORT AND LITERATURE REVIEW

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Introduction: Indocyanine green (ICG) is a non-toxic fluorophore with widespread use in clinical and surgical practice. It has multiple applications in breast surgery, including lymphatic mapping for sentinel lymph node biopsy, assessment of perfusion and flap viability in reconstructive surgeries, and intraoperative lesion localization when the tumor cannot be palpated. The use of fluorescence in breast surgery to evaluate flap perfusion in reconstructive procedures appears to be an effective tool for daily surgical practice, enabling real-time assessment of dermal and myocutaneous flap viability. Although there is substantial evidence supporting the benefits of fluorescence-guided surgery techniques, current clinical application in breast surgery remains limited. There is limited data in the literature on this scope, and the method's use is still restricted. The significance of this article lies in reporting a autologous breast reconstruction performed with the assistance of the SPY-PHI device and documenting real-time assessment of myocutaneous flap perfusion. **Methodology:** The study design was observational and retrospective, reporting a case involving a patient who underwent delayed breast reconstruction with autologous flaps assisted by fluorescence, using indocyanine green and intraoperative images obtained with the SPY-PHI device. Data were collected from medical records at Santa Izabel Hospital. The information included clinical data, the surgical technique employed, and intraoperative and postoperative outcomes. The study was approved by the institution's Research Ethics Committee via the Brazilian Platform Brasil, with the Certificate of Presentation for Ethical Review (CAAE) number 77670823.7.0000.5520. **Conclusion:** Breast reconstruction with a lipoinjected latissimus dorsi muscle flap is an effective and versatile option using autologous tissues. Although the risk of ischemic complications is low, excessive fat transfer can impair local microcirculation. Real-time blood perfusion monitoring with indocyanine green fluorescence assisted by SPY-PHI may serve as an alternative to incorporate this technology into breast reconstructive procedures.

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28602 – INFILTRATING BREAST CANCER OF THE CAPSULE OF A BREAST IMPLANT: A CASE REPORT AND LITERATURE REVIEW

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Introduction: Breast cancer is the most incident malignant neoplasm among the female population worldwide. In Brazil, breast cancer is the second most common among women after non-melanoma skin cancer. An estimated 74,000 new cases are expected annually until 2025. There has been a rising trend in breast augmentation surgeries with implants, according to American statistics; consequently, the number of women with breast cancer in this context is also increasing. Although there is no association between breast implants and an increased risk of developing cancer, the introduction of silicone implants leads to the formation of a capsule around the implant. This capsule results from the immune inflammatory response to the foreign body, consisting of multiple layers of collagen and inflammatory cells. The presence of vascularized tissue within the capsule may explain the unusual occurrence of cancer within or adjacent to the capsule. The scope of this article is to report an atypical case of breast cancer involving the implant capsule, due to the scarcity of studies in the literature on this subject. **Methodology:** The study design is descriptive, aiming to report a clinical case. Data were obtained from medical records, allowing for the collection of sociodemographic, clinical, pathological, and treatment information in patients with breast cancer adjacent to or infiltrating the silicone implant capsule. The study was approved by the Ethics Committee of the Institute via the Brazilian Platform (Plataforma Brasil), with the Certificate of Presentation for Ethical Review (CAAE) number 57203622.0.0000.5662. **Conclusion:** Given the high number of breast augmentation surgeries with implants, there is also an increase in the proportion of women with breast cancer in this context. Although there is no association between implants and an increased risk of developing breast cancer, the presence of vascularized tissue within the implant capsule may explain the uncommon occurrence of cancer within or adjacent to the capsule. For women with breast augmentation and a diagnosis of breast cancer, it is advisable to consider assessing the extent of the disease using breast MRI.

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28584 – ANALYSIS OF BREAST BIOPSY RESULTS ACCORDING TO AGE GROUP IN BRAZIL

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Introduction: Breast cancer is the most commonly diagnosed neoplasm in women. The incidence and mortality rates for breast cancer have been increasing among women aged 40 and older. Breast cancer at a young age increases the risk of local and distant recurrence, as well as subsequent mortality. Early detection strategies enable the identification of suspicious cases and the conduction of diagnostic investigations such as biopsy, allowing for prompt treatment initiation. In Brazil, according to the Early Detection Guidelines for Breast Cancer from the Ministry of Health, screening should be conducted in asymptomatic women aged 50 to 69 years, using bilateral mammography every two years. **Methodology:** Ecological, retrospective, quantitative, and descriptive study, in which data from breast biopsies between 2013 and 2023 were collected and presented in Tabnet of the Cancer Information System (SISCAN), through the platform of the Department of Informatics of the Unified Health System (DATASUS), encompassing all states of the federation. The data were analyzed considering the type of lesion diagnosed by biopsy and the patients' age group. **Conclusion:** Analyzing the data, it is possible to observe that the majority of biopsies performed yield benign results. Regarding malignant lesions, the incidence is similar in the age group of 40 to 69 years, with only a slight difference between the reported values. This indicates that breast cancer is occurring at younger ages than the current screening initiation age in Brazil. The results highlight the need to explore strategies to expand the screening age range for women, as early diagnosis is crucial to increase the chances of cure. The Early Detection Guidelines for Breast Cancer recommend screening should start at age 50, while the Brazilian Society of Mastology advises beginning at age 40. An alternative to the Ministry of Health's guidelines could be lowering the screening initiation age to 45, given that the incidence of malignant lesions in this age group is higher than in the 60 to 69-year range, justifying screening efforts in this population. Additionally, beyond early screening, it is essential to ensure that all patients have access to diagnostic confirmation through biopsy whenever mammography reveals suspicious lesions.

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28589 – IMMUNOHISTOCHEMICAL AND MOLECULAR ASPECTS OF BREAST PHYLLODES TUMORS AND THEIR IMPLICATIONS FOR DIAGNOSIS AND TREATMENT: A SCOPING REVIEW

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Introduction: Phyllodes tumor (PT) is a neoplasm composed of mesenchymal and epithelial elements. Histologically, it is classified as benign, borderline, or malignant. Diagnosis is made through imaging studies and histopathological examinations. The standard treatment is surgical excision with wide margins; however, there is no consensus in the literature regarding the true importance of immunohistochemistry and its impact on treatment and prognosis. **Methodology:** 1. Study type: Scoping review according to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR), consisting of the review of articles following a flowchart in five phases (identification, screening, eligibility, inclusion, and discussion). 2. Search sources: The indexed scientific literature was retrieved from the following databases: the U.S. National Library of Medicine (PubMed), Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (LILACS), Cochrane Library, National Institutes of Health (NIH) Clinical Trials, The National Institute for Health and Care Excellence (NICE), and the Virtual Health Library of the Brazilian Ministry of Health (BVS/MS). Additionally, the book of the Brazilian Society of Mastology (SBM) was consulted. 3. Search Period: The selected publications were published between 2018 and 2023. 4. Search mechanism and descriptors: A Boolean search was conducted using Medical Subject Headings (MeSH) with the terms "phyllodes tumor" AND "immunohistochemistry" and their corresponding terms in Spanish and Portuguese. A total of 424 publications were identified. 5. Inclusion criteria: This review included only original articles, clinical trials, and case reports written in English, Spanish, and Portuguese that involve: (i) PT as the disease, (ii) immunohistochemical aspects of these tumors, and (iii) evaluation of the relationship between immunohistochemistry and the diagnosis and treatment of PT. 6. Exclusion criteria: The studies excluded were as follows: (i) editorials/expert opinions, (ii) letters/communications, and (iii) publications in languages other than those specified for the study. **Conclusion:** In conclusion, wide surgical excision remains the established standard treatment; however, immunohistochemistry is a potential tool in histopathology and may, in the future, influence the treatment and prognosis of these tumors.

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28636 – INVASIVE BREAST CARCINOMA ASSOCIATED WITH FIBROADENOLIPOMA: A CASE REPORT

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Introduction: Breast hamartomas are benign lesions composed of glandular, adipose, and fibrous tissue, also known as fibroadenolipomas, lipofibroadenomas, or adenolipomas. They account for 4.8% of all benign breast masses. However, due to their poorly understood nature and lack of specific diagnostic features, their diagnosis may be underestimated by clinicians and pathologists. They are usually encapsulated, painless masses identified incidentally on screening mammograms. They appear as fibroadipose masses on mammography, but their appearance can vary, often presenting as solid on ultrasound; however, in 24% of cases, they may contain cystic regions. Although many hamartomas have benign radiographic characteristics, biopsy is recommended to confirm the diagnosis, especially in cases of discordance between clinical and imaging findings. Both fine-needle aspiration cytology (FNAC) and core needle biopsy may be inconclusive due to overlapping cytological features with other benign lesions. In some cases, surgical excision may be necessary for definitive diagnosis, particularly when there is no correlation with imaging studies. Most can be simply monitored. Hamartomas are rarely associated with breast cancer, and when cancer is detected, it is usually incidental. **Methodology:** This is a study presenting a case report of invasive breast carcinoma associated with a fibroadenolipoma area, with follow-up since 2023 at Erasto Gaertner Hospital, Curitiba, Paraná. Initially, the case was selected due to its rarity and clinical relevance. Prior to preparing the case report, informed consent was obtained from the patient, ensuring his understanding of the data sharing regarding his medical history while maintaining anonymity. The consent was documented in accordance with ethical and legal standards. Subsequently, clinical, radiological, pathological, and therapeutic data were collected from the patient's electronic medical record, and the case report was written. Discussions were held with members of the medical team involved in the case to obtain detailed information about the diagnostic and therapeutic approach, involving the Oncology Gynecology and Pathology teams. An extensive review of the literature was then conducted, researching in the following databases: the U.S. National Library of Medicine (PubMed), UpToDate, Latin American and Caribbean Literature in Health Sciences (LILACS), and Scientific Electronic Library Online (SciELO), selecting studies in Portuguese and English, published between 2010 and 2024. Scientific articles, systematic reviews, clinical guidelines, and previous case reports were reviewed to understand the epidemiology, clinical presentation, diagnosis, and management of the tumor. Based on the collected data and the literature review, the case discussion was conducted through a comparison between the clinical findings observed in the research participant and the outcomes previously documented in the scientific literature. **Conclusion:** Breast hamartomas are benign lesions composed of glandular, adipose, and fibrous tissue, often underestimated by clinicians and pathologists. Although many hamartomas have benign radiographic features, biopsy is recommended to confirm the diagnosis, especially in cases of discrepancy between clinical and imaging findings. They are rarely associated with breast cancer, and when cancer is detected, it is usually incidental, as presented in the case above.

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28612 – LEFT AXILLARY SCHWANNOMA WITH MALIGNANT-LIKE LYMPH NODE INVOLVEMENT: A RARE CASE REPORT

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Introduction: The schwannoma was first described in 1908 by Verocay, characterized as a neoplasm arising from the nerve sheath on the periphery of Schwann cells. Collins, in 1972, reported the first case of schwannoma located in the breast. Tumors of non-epithelial origin of the breast are extremely rare, accounting for 2%–3% of all schwannomas, and only 0.2% of all breast tumors are schwannomas. Axillary location accounts for 5% of all schwannomas, and malignancy is even rarer, representing 5%–10% of all sarcomas, primarily malignant in males. These tumors are usually located in the head, neck, arms, legs, torso, and chest, with axillary involvement being uncommon. The etiology of schwannomas is uncertain; however, they are believed to be related to metastatic diseases, radiotherapy, and advanced age. Our report describes a 43-year-old female patient with an axillary schwannoma exhibiting malignant-like lymph node involvement, with no risk factors for neoplasm development, making this case extraordinary. Schwannomas can occur at any age, but the highest incidence is in individuals aged 40 years or older, with no predilection for sex or ethnicity. Symptoms are often absent or present as a mass associated with paresthesia and/or radiating pain, which complicates early diagnosis. Diagnosis is usually delayed because the signs and symptoms can be confused with various benign and malignant lesions, such as fibroadenomas, phyllodes tumors, mesenchymal neoplasms, or breast cancer. Although rare and difficult to diagnose, the potential for malignancy and metastasis highlights the importance of studying this pathology, underscoring the need for early diagnosis, prompt, aggressive therapy. The literature reports approximately 37 cases of mammary and axillary neurilemomas, mostly of benign course, with only four reports of malignant schwannomas of the breast. To our knowledge, this is the only report of an axillary schwannoma with malignant lymph node involvement demonstrating satisfactory clinical and laboratory evolution. **Methodology:** Study Modality: This is a descriptive observational study of a case report type. Study Location: This research was conducted at a tertiary hospital in the state of Santa Catarina. Study Population and Sample: The sample of the present study consisted of a single clinical case involving one individual, female by biological sex. Ethical Procedures: The study complies with the ethical principles outlined in Resolution No. 466, enacted on December 12, 2012, by the National Health Council, which addresses testing and research involving human subjects and the rights guaranteed to them. The participant was informed about the study's objectives, methods, potential benefits, and any discomforts or constraints it might entail. The participant received a form of informed consent, which she signed, thereby authorizing her participation in the study. It was also emphasized that participation in this study was voluntary; therefore, if the patient did not wish to participate, she had the right to refuse at any point during the research. **Conclusion:** It is possible to state that axillary schwannomas are rare, but should be considered in the differential diagnosis of axillary nodules. In the literature, there are only four reports of malignant schwannomas in the breast. Therefore, the case described below is unique and involves a patient with an expanding left axillary nodule, with no prior history of disease or previous surgical or radiotherapeutic procedures, making the case unusual. The diagnosis was only confirmed through immunohistochemical analysis after tumor excision, which established the diagnosis of malignant axillary schwannoma with lymph node involvement requiring adjuvant chemotherapy and radiotherapy. Thus, this emphasizes the importance of an early diagnostic method and effective treatment approach, given the difficulty in diagnosis and the rarity of the case.

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28637 – ANALYSIS OF OVERALL SURVIVAL AND DISEASE-FREE SURVIVAL IN PATIENTS UNDERGOING NEOADJUVANT CHEMOTHERAPY: REAL-WORLD DATA FROM BRAZIL

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Introduction: Neoadjuvant chemotherapy (NACT), traditionally used for locally advanced disease, is now employed for patients with early breast cancer (BC) of aggressive subtypes (HER-2-positive and triple-negative). Breast cancer remains one of the leading causes of mortality among women worldwide, requiring innovative therapeutic approaches to improve treatment outcomes. NACT has emerged as a promising strategy, particularly for aggressive breast cancer types, offering the possibility of reducing tumor size prior to surgery. This study focuses on assessing pathological complete response (pCR) after NACT in a public referral center in Brazil, exploring its association with overall survival (OS) and disease-free survival (DFS). **Objectives:** This study aimed to characterize pCR and its relationship with OS and DFS among BC patients who NACT at a Brazilian public referral center, as well as to explore the association between pCR and BC subtypes. **Methodology:** This study employed a retrospective cohort based on Real-World Data (RWD) from a referral center for the treatment of female cancers in Brazil (Hospital Pérola Byington - HPB). As it involved analysis of the institution's secondary database, the present study was approved by the ethics committee. The recommendations of ISPE/ISPOR were followed for the development of an exploratory real-world study. Data from women diagnosed and treated in the specified healthcare environment between January 2011 and December 2020 were included. This study was submitted to and approved by the HPB Research Ethics Committee (approval number: CAAE 39097520.4.2001.0069). **Results:** Our cohort consisted of 1,601 individuals, of whom 364 (22.7%) achieved pCR (ypT0 ypN0). Patients who achieved pCR showed significantly higher OS rates (89% vs. 61%, p<0.001) and better DFS (90% vs. 66%, p<0.001), except in the luminal A subtype, where pCR did not correlate with improved OS or DFS. **Conclusion**: Our study demonstrated that data on pCR rates in patients undergoing neoadjuvant NACT BC in real-life settings are consistent with clinical trial data, and that pCR was associated with increases in OS and DFS in a RWD study. Furthermore, it showed that despite limited access to appropriate treatments for HER-2+ and TNBC patients, and although pCR rates for these subtypes were lower than those reported in randomized clinical trials, the OS and DFS of patients with pCR were still better.

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28624 – BREAST CANCER MORTALITY AND PESTICIDE USE IN THE WESTERN MESOREGION OF SANTA CATARINA, BRAZIL

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Introduction: Santa Catarina has significant agricultural productivity and ranks among the ten largest consumers of pesticides in Brazil. The state is notable for grain production, which exceeded 6.5 million tons in the 2021/2022 harvest. In the western mesoregion of the state, grain production is also prominent, especially with maize and soybean cultivation, where endocrine-disrupting pesticides are systematically used throughout the production chain of these transgenic crops. In Santa Catarina, considering female deaths from malignant neoplasms in 2020, 35% were related to breast cancer. There is a growing trend of breast cancer mortality among women residing in the state, evidenced by a mortality rate of 18.24 deaths per 100,000 women, higher than the Brazilian average rate of 14.23 deaths per 100,000 women. Breast cancer is the leading cause of cancer-related deaths among women and constitutes a significant public health problem worldwide. The etiology of breast cancer is multifactorial. Consequently, factors such as aging, heredity, hormonal and reproductive history, lifestyle, along with genetic and environmental factors, may trigger the disease. The cells of breast tissue undergo regulated proliferation by hormones, and the development of some invasive carcinomas of the mammary parenchyma can be influenced by hormonal stimuli. Chronic exposure to low concentrations of pesticides may not produce immediate health effects in a given population, but over time, they can contribute to an increase in cancer rates. Some pesticides are classified as endocrine disruptors, capable of exhibiting biochemical properties similar to endogenous hormones and consequently provoking additional hormonal stimuli in the female organism. In this context, the high production levels of the agricultural sector and the intensive use of pesticides raise concerns regarding occupational and environmental exposure, as well as the occurrence of diseases such as cancer. **Methodology:** This is a quantitative, retrospective ecological study that used publicly available secondary databases, which provide data on breast cancer mortality and agricultural production by cultivated area in the western mesoregion of the state of Santa Catarina (SC), Brazil. To collect data on breast cancer mortality by municipality, death records due to malignant mammary neoplasia, code C50 from the Tenth Revision of the International Classification of Diseases (ICD-10), provided by the Mortality Information System (SIM) of the Department of Informatics of SUS (DATASUS), were examined. The death data were grouped by age brackets: 20–39, 40–49, 50–59, 60–69, 70–79, and >80 years — for each municipality, considering deaths occurring between 2015 and 2019. Population projections were obtained from the preliminary estimates developed by the Ministry of Health (MS), Secretariat of Health Surveillance (SVS). The data were organized into spreadsheets in Microsoft Excel® (version 19), in which annual mortality coefficients per 100,000 women were calculated. To derive standardized cancer rates, the direct method was used, considering the Brazilian population as the standard, as per the 2010 Demographic Census, with age-specific coefficients applied accordingly. The average coefficients for 2015 to 2019 were then calculated. Regarding agricultural production, the annual sum of the planted area for maize, soybean, and wheat crops, measured in hectares (ha), was calculated for the period between the years 2000 and 2004. Data regarding the planted areas were obtained from the website of the Brazilian Institute of Geography and Statistics (IBGE), through the IBGE Automatic Recovery System. Due to the lack of public data on pesticide consumption in the state, an estimate was made following the methodology described by Dutra and Ferreira (2017), with some adaptations. The recommended dose, applied per crop (L or kg/ha) for each pesticide, was multiplied by the planted area in hectares, as recommended on the product labels. Information on the pesticides used in the selected crops was accessed via the website of the Santa Catarina Integrated Agricultural Development Company (CIDASC). All endocrine-disrupting pesticides approved for use in Santa Catarina were reviewed through the Santa Catarina Agriculture Defense Management System (SIGEN) (Cidasc, 2016). Endocrine-disrupting pesticides were identified based on classifications proposed by Mnif et al. (2011). The spatial analysis in this study started from investigating the data on breast cancer mortality and pesticide use in each municipality of the western region of Santa Catarina

(SC). This study did not focus on neighborhood relations but rather on how the two variables relate within each municipality. The correlation criterion involved crossing values above the mean for both the mortality rate and pesticide consumption. Thematic mapping was utilized, employing methods of data classification aimed at identifying spatial clustering trends. In the scatter plot, the numbers correspond to the following patterns: 1 "low," 2 "medium," 3 "high," and 4 "very high." The distribution of the number of municipalities in the western mesoregion of Santa Catarina was organized into a balloon chart, totaling 118, categorized by types of crossings. Warm colors indicate the number of municipalities where the class intersections are equivalent: "low pesticide use x low mortality rate," "medium use x medium rate," "high use x high rate," and "very high use x very high rate." Dark blue colors represent the number of municipalities where the crossing occurs above the average, for both breast cancer mortality rate and pesticide consumption history. The primary spatial analysis technique employed was classification into ranges using the cartometric method in Quantum GIS, known as the interquartile (quartile) method. According to the breast cancer mortality rates for the female population in 2020 in Brazil (11.84), the Southern Region (12.79), and the state of Santa Catarina (12.71 deaths per 100,000 women), as reported by the Ministry of Health (Inca, 2022), the mortality rates in the western mesoregion of Santa Catarina were classified into four ranges: "low" (0–5), "medium" (6–15), "high" (16–20), and "very high" (21–53.6). The overlay method was used to examine the spatial correlation between the mortality rate and the pesticide consumption history. This research was conducted following approval by the Research Ethics Committee of the University of the Region of Chapecó (UNOCHAPECÓ), via the Plataforma Brasil, under the Certificate of Presentation for Ethical Review (CAAE) number 33356720.9.0000.0116.
Conclusion: In this study, it was found that in 79% of the municipalities in the western mesoregion of Santa Catarina, breast cancer mortality occurred at a frequency above the regional average. Similarly, in municipalities where the use of endocrine-disrupting pesticides exceeded the regional average, there was a comparable trend. Therefore, it was demonstrated that there is a proportional correlation between breast cancer mortality rates and the use of pesticides in maize, soybean, and wheat crops during the studied period.

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28626 – OXIDATIVE MARKERS IN PATIENTS WITH BREAST CANCER

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Introduction: Numerous studies associate the emergence and progression of breast cancer with oxidative stress. This molecular scenario is characterized by an increase in pro-oxidants followed by a decrease in antioxidant defenses. **Methodology:** Participant recruitment took place at a reference hospital for cancer treatment in the western region of Santa Catarina (SC). After selecting participants based on the inclusion criteria — age over 18 years, with a diagnosis of invasive breast carcinoma (ICD: C50), and having not undergone surgical procedures for tumor removal or neoadjuvant therapy (chemotherapy, radiotherapy, hormone therapy, immunotherapy, targeted therapy) prior to the study — informed consent was obtained, and personal data as well as a blood sample were collected by trained professionals in an appropriate environment. The blood samples were transported to the Federal University of the Southern Border (UFFS) for processing. The levels of the enzyme superoxide dismutase (SOD) were evaluated in total blood using an enzymatic assay. Meanwhile, the levels of thiobarbituric acid reactive substances (TBARS) and ascorbic acid were measured in patient serum through colorimetric assays. For the control group, patients of similar age range were recruited. After obtaining the results, statistical analysis was performed using the Mann-Whitney test, with significance considered at $p<0.05$. This study was approved by the Research Ethics Committee of UFFS, under opinion nº 3.421.380 and the Certificate of Presentation for Ethical Review (CAAE) nº 09306919.5.0000.5564. **Conclusion:** In this study, we observed that patients with breast cancer have altered levels of oxidative stress markers, which may be associated with disease progression.

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28628 – ANTIPROLIFERATIVE EFFECT OF CAFFEINE ON A TRIPLE-NEGATIVE BREAST CANCER CELL LINE

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Introduction: Among the main types of cancers leading to women's mortality, breast cancer is prominently highlighted. Specifically, triple-negative breast cancer (TNBC) is characterized by the lack of expression of progesterone, estrogen, and HER2 receptors, which limits the effectiveness of standard antineoplastic therapies since hormone therapy is ineffective, thereby increasing the risk of metastasis and recurrence. In this context, natural compounds are being studied for potential adjuvant use alongside traditional treatments. **Methodology:** Experiments were conducted in the cell culture laboratory at the Federal University of the Southern Border (UFFS). The cell lines used were MDA-MB-231 (triple-negative breast cancer) and CCD1059sk (mammary region fibroblasts), obtained from the Rio de Janeiro Cell Bank (BCRJ). Cells were cultured in 96-well plates at a density of 2x10^4 cells per well until 90% confluence. Subsequently, they were treated with varying concentrations of caffeine (0.5 mM, 1 mM, 2 mM, 4 mM) for 24 hours. Cell viability was assessed using the MTT assay (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide). Statistical analyses were performed using one-way ANOVA and Tukey's post hoc test in GraphPad Prism 9.0 software. Results were considered statistically significant when $p<0.05$. This study was submitted to the UFFS Research Ethics Committee and approved under opinion nº 3.421.380, with the Certificate of Presentation for Ethical Review (CAAE) nº 09306919.5.0000.5564. **Conclusion**: It was observed *in vitro* that caffeine decreases the viability of MDA-MB-231 breast cancer cells and has no cytotoxic effect on non-tumorigenic cells (CCD1059sk).

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28634 – ADVANCES IN ARTIFICIAL INTELLIGENCE AND GENETIC TESTING FOR THE PREVENTIVE DIAGNOSIS OF BREAST CANCER

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Introduction: Every year, over one million women worldwide die from breast cancer. In Brazil, neoplasms are the second leading cause of death among women, with breast cancer ranking first. Early diagnosis is essential for reducing the stage at presentation of breast cancer, contributing to a favorable prognosis. According to the American Cancer Society, when breast cancer is diagnosed at early stages, the five-year survival rates are significantly higher than in advanced stages. Currently, the main diagnostic methods used include mammography, clinical examination, ultrasound, scintigraphy, PET scan, biopsy, histopathological and cytopathological exams, BRCA1 and BRCA2 genetic testing, among others. Artificial intelligence (AI) and machine learning (a branch of AI that enables programs to learn from data and identify patterns to make predictions) are increasingly being applied in the medical field, being used for image analysis, automated diagnosis, personalized pharmaceutical systems, among others. In recent years, performance studies comparing automated breast cancer detection in digital mammography and digital tomosynthesis with experienced radiologists have shown that these algorithms are reaching human-level performance. In addition to assisting in diagnoses through imaging exams, artificial intelligence and machine learning are capable of aiding in the detection and treatment of breast cancer by using genetic sequencing and histopathological images. **Methodology:** This is an integrative review conducted in March 2024 through searches in databases provided by digital bibliographies. From this search, 15 articles were identified and subsequently subjected to inclusion criteria. The inclusion criteria were: articles in Portuguese and English; published between 2001 and 2023; addressing the themes proposed for this study; and review studies available in full. The exclusion criteria were: duplicate articles; articles available only as abstracts; studies that did not directly address the research proposal; and articles that did not meet the other inclusion criteria. After applying these criteria, seven articles remained and were carefully reviewed for data collection. Additionally, books related to the area of interest were consulted to clarify concepts presented in the review articles. **Conclusion:** Although AI has shown significant promise in breast cancer diagnosis, there are still some aspects that require improvement to ensure even more accurate and effective diagnoses. These aspects include the interpretation of complex images, where the ability to identify small lesions, distortions, or microcalcifications in the early stages of breast cancer continues to challenge AI systems. Additionally, AI models can be limited by the diversity of available training data, highlighting the importance of representative and diverse datasets for proper generalization. Furthermore, protecting patient privacy and data security is essential when developing and implementing AI systems for breast cancer diagnosis. It is well known that early detection of breast cancer is crucial for improving survival rates. Although traditional diagnostic methods such as mammography, ultrasound, CT scans, and genetic testing remain the most widely used, AI and machine learning are increasingly prevalent and effective in disease diagnosis, helping to reduce errors and providing more reliable diagnoses. Nevertheless, despite the challenges in interpreting more complex images and ensuring data security, AI is surpassing many radiologists in image analysis and automated diagnosis.

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28512 – IS SSENTINEL LYMPH NODE BIOPSY AS HARMLESS AS IT SEEMS?

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Introduction: Sentinel lymph node biopsy is the gold standard for axillary staging in breast cancer patients, both in early stages and in those who have received neoadjuvant therapy. Since its initial application, the results compared to axillary dissection, especially regarding morbidity, have been notably superior. However, despite being less invasive, post-procedure sequelae are not uncommon, and in some cases, they can be disabling, with symptoms that affect patients' quality of life. **Conclusion:** Selective sentinel lymph node biopsy is a less invasive technique than axillary lymph node dissection but not entirely harmless. In our series, the incidence of complications was 60.4%.

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28457 – EPIDEMIOLOGICAL AND CLINICOPATHOLOGICAL PARAMETERS ASSOCIATED WITH NEOADJUVANT CHEMOTHERAPY IN BREAST CANCER DURING THE COVID-19 PANDEMIC

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Introduction:

Breast cancer is a complex and heterogeneous disease. Its socioeconomic aspects have been recognized as determinants of clinical outcomes. The COVID-19 crisis negatively affected millions of people, especially in impoverished macro-regions such as Brazil. **Conclusion:** This study demonstrated the impacts of the COVID-19 pandemic on the patient's journey with breast cancer. During this period of interruptions in healthcare services, the disease presented at more advanced stages, but the complete pathological response (pCR) was higher than expected, and the influence on chemotherapy decisions was not significant. Overall, efforts were made to ensure patients received the best targeted care for breast cancer.

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28563 – RADIOINDUCED BREAST ANGIOSARCOMA: A CASE REPORT

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Introduction: Angiosarcomas are malignant tumors composed of neoplastic endothelial cells of blood or lymphatic vessels. They can develop in the skin, lungs, liver, or spleen, but 8% of these tumors occur in the breasts. They are classified into primary and secondary types. Primary angiosarcomas are rare tumors, with an incidence ranging from 0.04% to 0.05% of malignant breast tumors. Secondary angiosarcomas are associated with post-mastectomy lymphedema (Stewart-Treves syndrome) and those linked to post-surgical radiotherapy, whether after radical or conservative breast surgery, with an incidence ranging from 0.14% to 0.3% (radiation-induced tumors). **Methodology:** To write this case report, the authors conducted a literature review across the following databases: the United States National Library of Medicine (PubMed), Latin American and Caribbean Literature in Health Sciences (LILACS), Virtual Health Library (VHL), the National Institute for Health and Care Excellence (NICE), Cochrane Library, and Scientific Electronic Library Online (SciELO). A total of 45 publications related to the topic were identified, from which 12 articles were selected. Subsequently, all selected studies were read in full, applying eligibility criteria to determine inclusion or exclusion. Inclusion criteria: only original articles, clinical trials, and case reports written in the last five years in English, Spanish, and Portuguese that involve: (i) angiosarcoma of the breast as the disease, and (ii) radiation induction. Exclusion criteria: (i) editorials/expert opinions, (ii) letters/communications, and (iii) publications in languages other than those specified for the study. **Conclusion:** Following an incisional biopsy, the histopathological analysis revealed an atypical vascular lesion. Immunohistochemistry showed positivity for CD31 and CD34 antigens, absence of estrogen receptors, and amplification of the C-MYC oncogene confirmed the diagnosis of radiation-induced angiosarcoma, with a grade III anaplasia. Mammography demonstrated only skin thickening in the upper quadrants of the right breast (Breast Imaging Reporting and Data System — BI-RADS 2), while breast ultrasonography revealed well-defined subcutaneous nodular formations, parallel to the skin, with parietal calcifications suggestive of fat necrosis (BI-RADS 3). Subsequently, the patient underwent a modified radical mastectomy according to Madden's technique, along with evaluation of the lateral thoracic sentinel lymph node and the para sentinel lymph node, both of which were negative for malignancy. The patient showed an excellent postoperative course and, six months later, remains in good health, asymptomatic, with no evidence of active disease.

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28566 – PRIMARY BREAST LYMPHOMA ASSOCIATED WITH INVASIVE BREAST CARCINOMA: A CASE REPORT

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Introduction: This case report describes a 54-year-old patient who developed invasive breast carcinoma in her left breast without further specifications, of the luminal B molecular subtype, concurrently with a primary breast lymphoma (diffuse large B-cell lymphoma with the germinal center B-cell subtype), which was definitively diagnosed only after surgical intervention. Synchronous occurrence of breast cancer and non-Hodgkin lymphoma (NHL) is an uncommon situation, with only 38 cases reported in the literature. It is extremely rare for both tumors to present as a collision tumor within the same breast. A collision tumor refers to the coexistence of two histologically distinct tumors occurring at the same site. The mechanisms underlying this collision are highly complex, and it remains unclear whether the pathophysiological association between them can be attributed to being induced by the same causal factor. Breast lymphoma is an uncommon hematological neoplasm originating in the breast lymphoid tissue. Its prevalence is low, ranging from 0.04%–0.7%. It is classified into primary breast lymphoma (PBL), when it occurs in the breast without concomitant widespread disease, and secondary breast lymphoma (SBL), when there is metastatic involvement of the breast. The average age of onset for PBL varies from 60 to 65 years; it does not have a specific manifestation but usually presents as a unilateral, painless, palpable mass. Most PBLs are high-grade B-cell lymphomas, with diffuse large B-cell lymphoma (DLBCL) being the most common subtype, as well as the one with the worst prognosis and highest recurrence rate. After diagnosis, treatment of breast lymphoma is based on a combination of surgery, radiotherapy, chemotherapy, and immunotherapy. It is believed that the development of breast lymphoma associated with invasive breast carcinoma could be induced by the same virus or by hormonal alterations, primarily estrogen. Another hypothesis is that breast cancer could act as a stimulating factor for lymphoma, just as the reduced immune function caused by lymphoma may promote the development of carcinoma. The association between non-Hodgkin lymphoma and breast carcinoma is extremely rare, and currently, there is no clear treatment pattern or detailed information regarding its prognosis. **Methodology:** In January 2022, a 54-year-old single female patient, a native and resident of São Paulo/SP, sought medical attention due to the appearance of a palpable nodule in the left breast for more than a year, accompanied by intermittent bleeding from the lesion that began a month prior. She had a diagnosis of systemic arterial hypertension and was being treated with two antihypertensive medications. The patient was nulliparous, her menarche occurred at age 12, she experienced menopause at age 46 (without hormone replacement therapy), and she denied having used combined oral contraceptives. She had a family history of esophageal cancer in her brother, who was a smoker and alcohol consumer. On physical examination of the breasts, inspection revealed an ulcerated lesion in the healing process involving the entire left breast, primarily in the lateral quadrants, without active bleeding. Palpation showed that the lesion measured approximately 15x12 cm, was hardened, and had limited mobility. In the left axillary region, a fibroelastic lymph node measuring 1.5 cm was palpated. During the first consultation, the patient brought an external breast ultrasound from December 2021, which described an infiltrative architectural distortion affecting nearly all quadrants, diffusely heterogeneous with poorly defined hypoechoic areas, involving the skin and subcutaneous tissue, especially in the lateral quadrants; presence of atypical axillary lymphadenopathies measuring up to 15x11 mm. Bilateral mammography at our institution revealed a 50 mm retroareolar nodule in the left breast, with irregular margins and poorly defined borders (Breast Imaging Reporting and Data System — BI-RADS 4); Our breast ultrasound showed a large, solid lesion in the left breast that was difficult to measure, while the right breast appeared normal. Additionally, CT scans of the chest, abdomen, and pelvis, as well as a bone scintigraphy, were performed to exclude other primary neoplastic sites; all examinations showed no abnormalities. The patient underwent an incisional biopsy of the left breast in the surgical center, and the histopathological report indicated atypical lymphocytic infiltration of mixed B and T cells, suggestive of reactive lymphoid hyperplasia. A core biopsy guided by ultrasound of the left breast nodule was

also performed. The histopathological and immunohistochemical analysis of the biopsied tissue revealed mammary tissue with foci of moderate lymphocytic inflammatory infiltrate in a perivascular, periductal, and interstitial distribution, fibrosis, hyalinization of the stroma, and focal pseudoangiomatous hyperplasia of the stroma. The tissue was estrogen receptor positive in the ducts, p63 positive in myoepithelial cells, and AE1/AE3 positive in the ducts. Following the review of supplementary tests and clinical examination, a decision was made to proceed with initial surgical treatment. The patient underwent a mastectomy with left axillary approach, based on intraoperative frozen section results, and closure was achieved using a latissimus dorsi flap (performed in collaboration with the plastic surgery team). Histopathological analysis of the surgical specimens revealed areas of invasive breast carcinoma without further specification (20%), histological grade II, nuclear grade 3, multifocal (with three foci, the largest measuring 17x15 mm), no ductal carcinoma in situ (DCIS) detected, with extensive lymphovascular invasion present, associated with an extensive large cell lymphoma (80%) measuring approximately 20 cm, involving and ulcerating the skin and infiltrating muscle. Surgical margins were negative for invasive carcinoma; however, the deep margin coincided with the lymphoma. Immunohistochemical analysis of the invasive breast carcinoma showed high expression of estrogen (ER) and progesterone (PR) receptors (95%), a Ki-67 proliferation index of 80%, and HER2 was negative (score 0). The expression of AE1/AE3 cytokeratins confirmed the epithelial histogenesis of this neoplasm. The expression of GATA3 and estrogen receptor (ER) indicates the breast as the primary site of this carcinoma. Negativity for P63 confirms the absence of myoepithelial cells surrounding the tumor, thereby corroborating the diagnosis of invasive carcinoma. The expression of E-cadherin and β-catenin confirms that it is an invasive carcinoma of unspecified type (CI SOE or CINE). Meanwhile, the lymphoma component shows negativity for cytokeratins and positivity for CD20, confirming a B-cell immunophenotype lymphoma. Positivity for BCL6, along with negativity for MUM1, supports the diagnosis of a large B-cell lymphoma with an immunophenotype indicative of the germinal center B-cell (GCB) molecular subtype. Thus, the findings indicate a multifocal luminal B invasive carcinoma associated with extensive large B-cell lymphoma with an immunophenotype pointing to the GCB subtype. Pathological staging (pTNM, AJCC 8th edition): mpT1c pN1a pMx. Following surgery, the patient was referred to oncology and hematology for adjuvant treatment planning. She was indicated to receive six cycles of R-CHOP (rituximab, cyclophosphamide, doxorubicin hydrochloride, vincristine sulfate, and prednisone) along with adjuvant radiotherapy to the left thoracic wall at a dose of 40.05 Gy in 15 sessions. The patient is currently under regular follow-up, on endocrine therapy with anastrozole since May 2023, with good treatment tolerance and remains asymptomatic to date. **Conclusion:** The association between NHL and breast cancer is extremely rare. The mechanisms that lead to this tumor collision are highly complex and not yet fully understood, particularly regarding the main causal factors. Clinical diagnosis remains challenging, given the small number of reported cases to date.

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28635 – EPIDEMIOLOGICAL ASPECTS OF CONTRACEPTION IN WOMEN WITH BREAST CANCER AND PATTERNS OF UTERINE BLEEDING

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Methodology: A total of 163 women with invasive breast cancer during reproductive age were analyzed between January and December 2023. The mean age at diagnosis, along with the standard deviation (SD), was calculated, along with molecular subtypes, contraceptive methods used, bleeding patterns, and serum estradiol levels (pg/mL). Statistical analysis of categorical variables was conducted using percentages (%), while quantitative variables were analyzed through means and standard deviations (SD) using the Student's t-test, with $p<0.05$ considered statistically significant at a 95% confidence interval. **Conclusion:** The most representative molecular types were hormone receptor-positive breast cancers in women of reproductive age, making contraception necessary through the use of a safe method such as a non-hormonal IUD, because maintaining or restoring the neuroendocrine axis promotes an increase in unplanned pregnancies in this vulnerable population.

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28560 – THE ROLE OF TUMOR RESISTANCE IN NEOADJUVANT CHEMOTHERAPY: EFFICACY OF A NOVEL IN VITRO BREAST CANCER CHEMORESISTANCE PLATFORM TO DEMONSTRATE HIGH RESISTANCE PATTERNS IN RESIDUAL DISEASE

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Introduction: Functional precision medicine is an innovative treatment strategy in which drugs are tested on the patient's cancer cells cultured outside the body. It is a powerful method to understand tumor resistance and match the most appropriate treatment to the patient. Previous literature showed that patients with blood and brain cancer live longer when their chemotherapy regimens are guided by functional drug testing compared to their experiences of standard treatments. Some methods are already available worldwide, offering personalized drug testing services; however, in Brazil, no in vitro chemoresistance test for cancer is validated for use in the clinic. Indeed, screening many drugs in cancer cells cultured outside the body can be technically demanding, time-consuming, and costly. We developed a novel in vitro tumor resistance platform, aiming at an individualized and precise treatment in oncology, reducing toxicity and improving outcomes. Our in vitro resistance test has the advantage over other chemoresistance assays to exhibit the drugs stable within the platform, eliminating pipetting errors and reducing costs associated with the drugs. **Methodology:** Patients with invasive breast cancer (BC) who presented residual disease after neoadjuvant chemotherapy (NACT) were included. Fresh tumor samples were collected during surgery and dissociated to obtain the tumor cells. The tumor cells were cultured in the chemoresistance platform with doxorubicin, epirubicin, paclitaxel, docetaxel, carboplatin, cisplatin, and cyclophosphamide, and, after 72 hours, cell viability was evaluated. The test result is defined based on cell viability as low (<40%), medium (40%–60%), and high (>60%) resistance. **Conclusion:** This preliminary finding highlighted the efficacy of the in vitro chemoresistance platform to demonstrate that cancer cells in residual disease after NACT presented high resistance rates to several cytotoxic drugs commonly used in BC treatment. Suggesting a role of tumor resistance in the worse prognosis of patients with residual disease after NACT and highlighting the importance of a personalized breast cancer treatment strategy to avoid the use of inefficient drugs.

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28561 – A NOVEL IN VITRO BREAST CANCER CHEMORESISTANCE PLATFORM

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Introduction: Breast cancer (BC) is a highly heterogeneous disease characterized by distinct molecular subtypes and prognoses. Tumor resistance is the main cause of treatment failure, leading to cancer progression. Despite the knowledge of different drug resistance mechanisms in BC cells, overcoming resistance is still challenging. Therefore, predicting resistance before initiating chemotherapy is valuable for increasing treatment benefits. Functional precision medicine is an innovative treatment strategy in which drugs are tested on the patient's cancer cells, cultured outside the body, to understand tumor resistance and match the most appropriate treatment. Some methods are available worldwide, offering personalized drug testing services; however, in Brazil, no in vitro chemoresistance test for cancer is validated for use in the clinic. Chemoresistance assays use supra-therapeutic doses of chemotherapeutic drugs to identify ineffective agents to which the tumor is resistant, with a high level of accuracy, approximately 90%. Previous findings have demonstrated the efficacy of chemoresistance assays in predicting a patient's response to chemotherapy and selecting the most appropriate therapy regimen. However, few studies demonstrated a significant association between these assays and breast cancer patient prognoses. We developed a novel in vitro tumor resistance platform aiming at an individualized and precise treatment in oncology. Our in vitro resistance test has the advantage over other chemoresistance assays to exhibit the drug's stability within the platform, eliminating pipetting errors and reducing costs associated with the drugs. **Methodology:** Patients with primary invasive BC were included in this report. Fresh tumor samples were collected during surgery or biopsy and dissociated to obtain the tumor cells. The tumor cells were cultured in the chemoresistance platform with several cytotoxic drugs used for BC treatment, including taxanes, anthracyclines, platin, and cyclophosphamide, and, after 72 hours, cell viability was evaluated. The test result is defined based on cell viability as low (<40%), medium (40%–60%), and high (>60%) resistance. **Conclusion:** This finding showed the capacity of the chemoresistance platform to demonstrate different patterns of drug resistance in accordance with the tumor's molecular biology. The increased number of patients undergoing neoadjuvant chemotherapy and the need to understand the best treatment strategy highlighted the importance of functional precision medicine to avoid the use of inefficient drugs, improving and personalizing breast cancer treatment.

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28570 – NIPPLE-SPARING MASTECTOMY IN YOUNG VERSUS ELDERLY PATIENTS

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Introduction: Young age is an independent prognostic factor of aggressive disease and worse prognosis of breast cancer (BC) patients. Previous studies suggest that BC in premenopausal women has distinct clinicopathologic and molecular features that can affect treatment outcomes and should be considered when developing treatment plans. Growing evidence has been showing the oncological safety of nipple-sparing mastectomy (NSM) to treat BC; however, there is still a lack of data comparing NSM in young and aged patients. **Methodology:** Between January 2004 and December 2018, young and elderly patients undergoing NSM with complete data from at least six months of follow-up were included. The data was retrospectively evaluated by the medical chart, and the patients' follow-ups were updated during the appointments. All patients were operated on by a senior surgeon, and the risks and benefits of the NSM were previously discussed with the patients, including the risk of complications and the concern regarding nipple preservation. **Conclusion:** Our findings demonstrated higher recurrence rates in young patients compared to older women, which might be related to age being an independent prognostic factor. High overall survival and low complication rates were evidenced in the two groups, showing the safety of NSM for young and elderly patients.

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28571 – WHICH ARE THE FACTORS AFFECTING LOCAL RECURRENCE AFTER NEOADJUVANT CHEMOTHERAPY IN PATIENTS UNDERGOING NSM?

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Introduction: Nipple-sparing mastectomy (NSM) is a conservative mastectomy approach for breast cancer with oncological safety and good aesthetic satisfaction. Some authors expanded the classic indications of NSM for patients who underwent neoadjuvant chemotherapy and mostly confirmed that NSM is safe, presents good cosmetic results, and has low postoperative complication rates after NACT. However, there is still lacking literature regarding the risk factors for local and locoregional recurrence of NSM with immediate breast reconstruction after NACT and data from Brazilian patients. **Methodology:** We evaluated 101 breast cancer patients undergoing 194 NSM after NACT between January 2004 and December 2020. The data was retrospectively evaluated by the medical chart, and the patients' follow-up was updated during the appointments. **Conclusion:** A complete response to NACT is associated with a better prognosis; however, in our cohort, it does not interfere with the chance of developing local recurrence. Factors such as bilateral breast cancer, bigger tumor size, and lymph node metastasis might be important to be considered for the recurrence risk during follow-up.

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28572 – POSTOPERATIVE COMPLICATIONS FOLLOWING NIPPLE-SPARING MASTECTOMY: COMPARISON OF NEOADJUVANT AND ADJUVANT CHEMOTHERAPY

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Introduction: Nipple-sparing mastectomy (NSM) is a conservative mastectomy approach for breast cancer and prophylactic management in high-risk patients, ensuring oncological safety and good aesthetic satisfaction. The demand for NSM has grown in recent years due to expanded patients' eligibility criteria, including those undergoing neoadjuvant chemotherapy (NACT). However, concerns persist among surgeons, particularly about postoperative complications, especially nipple-areolar complex (NAC) necrosis. The indication of NSM after NACT is more recent, and literature regarding complications is still lacking. **Methodology:** Between January 2004 and December 2022, patients undergoing NSM after NACT (148 patients) and without neoadjuvant systemic treatment (120 patients referred to adjuvant chemotherapy) were included. The 30-day postoperative complications were analyzed. The medical chart retrospectively evaluated the data, and the patients' follow-ups were updated during the appointments. A senior surgeon operated on all patients, and the risks and benefits of the NSM were previously discussed with the patients, including the risk of complications and the concern regarding nipple preservation. **Conclusion:** Our findings demonstrated similar rates of postoperative complications in patients undergoing NACT and those referred to adjuvant chemotherapy without neoadjuvant systemic treatment. The study supports the idea that NSM can be considered a safe and effective procedure after NACT in selected patients.

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28623 – EFFECTS OF ONCOPLASTIC SURGERY IN BREAST CANCER TREATMENT IN ONCOLOGY PATIENTS: AN INTEGRATIVE REVIEW

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Introduction: Breast cancer is a heterogeneous pathology that affects women worldwide. It is the second most incident neoplasm in Brazil and globally, with an estimated 73,610 new cases for the 2023–2025 triad, according to the Brazilian National Cancer Institute, with an estimated risk of 66.54 new cases per 100,000 women. Considering the increase in case numbers and the clinical and psychosocial impacts of surgical approaches, this study aimed to highlight the effects of oncoplastic surgery (OPS) in oncology patients, analyzing the psychosocial and aesthetic clinical impacts of this surgical procedure. **Methodology:** Integrative literature review on the effects of OPS in the treatment of breast cancer in oncology patients. The search for articles was conducted in the following databases: National Library of Medicine, Scientific Electronic Library Online, and Virtual Health Library, in December 2023, using Health Sciences Descriptors (DeCS) in Portuguese and English, "*câncer de mama*/breast cancer" and "*neoplasia de mama*/breast neoplasm" combined with the Boolean operator OR and associated with the Boolean operator AND to the DeCS "*qualidade de vida*/quality of life" and *"cirurgia oncoplástica*/oncoplastic surgery.". The eligible articles were published in the last five years (2018–2023), in English, Portuguese, and Spanish, provided they were not duplicated and were available for free in full text. **Conclusion:** This integrative review made it possible to outline an overview of what has been researched and published worldwide, and especially in Brazil, regarding the effects of OPS in the treatment of breast cancer in oncology patients. It also highlights the challenges in making quality-of-life assessment tools related to this therapeutic approach more promising. The findings gathered here reinforce the importance of self-image in the prognosis of breast cancer and the role of OPS as a protagonist in this context. Finally, the importance of conducting further studies on the topic is emphasized, particularly original studies in Brazil, using scales and questionnaires that recognize and utilize the various domains of quality of life related to oncoplastic surgery.

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28507 – ONCOPLASTIC SURGERY: EXPERIENCE FROM THE FIRST POSTGRADUATE COURSE IN BREAST RECONSTRUCTION

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Introduction: Breast cancer is the most common type of cancer affecting women worldwide. Surgical treatment for breast cancer has long carried the stigma of mutilation, but with the advent of new breast reconstruction techniques, the quality of life for these women has been improving. Oncoplastic surgery combines plastic surgery techniques with oncological surgeries for these women, yielding better aesthetic outcomes. **Conclusion:** The oncoplastic surgery course provided a great opportunity to enhance the specific technical skills required in breast reconstruction and breast-conserving techniques. This was essential to offer more effective and less invasive treatments.

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28576 – RETROSPECTIVE ANALYSIS OF THE EPIDEMIOLOGICAL PROFILE OF PATIENTS UNDERGOING BREAST RECONSTRUCTION IN A PUBLIC HOSPITAL IN THE NORTHEAST

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Introduction: Breast reconstruction is a right guaranteed by the public health system to patients undergoing mastectomy. However, there are factors that delay the performance of this procedure, especially within the Unified Health System (SUS). **Methodology:** The data were collected through a clinical-surgical questionnaire of patients with breast carcinoma who underwent breast reconstruction and were subsequently analyzed using the Statistical Package for the Social Sciences (SPSS) software, version 18. The percentages of the evaluated categories were assessed using the chi-square test, considering a significance level of 5%. The comparison of the analyses was significant ($p < 0.005$), demonstrating that the described profile is the most frequent in the group of patients evaluated. The study was approved by the Ethics Committee of the Centro Universitário Integrado de Saúde Amaury de Medeiros (CISAM) under the Certificate of Presentation for Ethical Appreciation – CAAE 42457420.1.0000.5193. **Conclusion:** The findings support that patients with higher educational levels and better awareness are more likely to undergo immediate breast reconstruction.

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28647 – EFFECTS OF TAPING APPLICATION IN THE IMMEDIATE POSTOPERATIVE PERIOD IN WOMEN UNDERGOING LIPOSUCTION IN THE ABDOMINAL AND FLANK REGIONS FOR BREAST LIPOFILLING: A CASE SERIES

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Introduction: Liposuction was the most performed procedure in plastic surgery worldwide in 2021. According to data from the International Society of Aesthetic Plastic Surgery, liposuction saw an increase of 24.8%, with over 1.9 million procedures compared to 2020. Fat transfer or autologous tissue grafting is used in both aesthetic and reconstructive breast surgery to correct volumetric defects. The preferred donor sites are the abdomen, flanks, and lateral thighs. To control the side effects arising from this technique, different approaches can be employed, including taping, which consists of an elastic adhesive tape that, when in contact with the skin, has effects to minimize inflammatory reactions in the area. **Methodology:** The research consists of a case series with a total of seven participants. The Visual Analog Scale (VAS) was used to measure the self-perception of the evaluated patients, with an initial score ranging from 0 to 10, where 0 indicates no self-perception and 10 indicates maximum self-perception of edema, pain, and discomfort in the abdominal and flank regions. As a descriptive variable, the averages of these values were obtained. The project has already been submitted for approval to the Research Ethics Committee of the Hospital de Clínicas de Porto Alegre, with the AgHUse number 2024-0085, CAAE: 79660724.5.0000.5327, and REBEC RBR-4s4fnqc. **Conclusion:** The presented results reveal a difference in the participants' perception regarding pain, edema, and discomfort levels with the application of taping in the immediate postoperative period of liposuction surgery in the abdominal and flank regions for breast lipofilling. Among the studied variables, edema and discomfort levels were lower in the experimental group (G1) compared to the control group (G2), demonstrating a benefit with the use of taping. The research is ongoing, aiming for greater recruitment to reach the desired number of participants and characterize a randomized clinical trial. Therefore, the results presented in this research cannot be considered conclusive.

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28569 – PROFILE OF BREAST CANCER PATIENT CARE IN A REFERENCE HOSPITAL IN RIO GRANDE DO SUL

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Introduction: Breast cancer in Brazil is a major public health issue. Among women, it is the most incident neoplasm, with higher rates in the South and Southeast regions, according to the National Cancer Institute José Alencar Gomes da Silva (INCA). For each year of the 2023–2025 triennium, an estimated 73,610 new cases of the disease were projected. **Justificatiion**: The design and better understanding of the profile of breast cancer patients who arrive for care and their main characteristics enable the improvement of a better understanding of the possible course of the disease, considering the specificities of each patient. **Methodology:** The following variables were analyzed: year of diagnosis, race, education level, smoking status, age at diagnosis, menarche, body mass index, disease staging, tumor size, and death. **Conclusion:** The study aims to improve the understanding and characterization of the main epidemiological factors related to patients arriving for breast cancer care, not only aiding in a better understanding of this population but also enabling support for future disease prevention campaigns.

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28590 – PREDICTIVE VALUE OF TUMOR-INFILTRATING LYMPHOCYTES FOR RESIDUAL DISEASE IN TRIPLE-NEGATIVE BREAST CANCER IN PATIENTS AFTER NEOADJUVANT CHEMOTHERAPY

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Introduction: The evaluation of tumor-infiltrating lymphocytes (TILs) has been widely studied in the pretreatment setting. However, the prognostic role of TILs in residual disease after neoadjuvant chemotherapy (NAC) involving immune changes in the tumor microenvironment remains under debate. **Methodology**: Slides from stage II and III triple-negative tumors between 2008 and 2019 of patients with residual disease after NAC were analyzed. Stromal TILs were assessed at two time points: pre-NAC and post-NAC. TIL counts were performed according to the recommendations of the International TILs Working Group, analyzed as a continuous measure and divided into two categories: high infiltration with ≥30% of the area infiltrated by lymphocytes, and low infiltration when the area was <30%. **Conclusion**: The increase in TIL infiltration after NAC may help identify additional immunogenic characteristics presented by residual triple-negative breast cancer induced by treatment. The differentiation of patients who do not achieve pathological complete response (pCR) but exhibit favorable immunological tumor characteristics (increase in TILs) can assist in better selecting patients who would benefit from complementary therapies focused on the immune system..

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28591 – EVALUATION OF THE PREDICTIVE ROLE OF TUMOR-INFILTRATING LYMPHOCYTES IN PATIENTS WITH HER-2 POSITIVE BREAST CANCER

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Introduction: The increase in pretreatment tumor-infiltrating lymphocytes (TILs) in patients with human epidermal growth factor receptor 2 (HER-2) positive breast cancer has been studied in recent years, showing a positive and independent association with future pathological complete response (pCR). **Methodology**: Histological slides of HER-2 positive breast tumors, stages II and III, between 2008 and 2019 were analyzed. Stromal TILs were assessed pre-NAC. TIL counts were performed according to the recommendations of the International TILs Working Group, divided into two categories: high infiltration ≥30% of the area infiltrated by lymphocytes; and low infiltration, or <30% of the area infiltrated. **Conclusion**: The possibility of predicting pathological complete response (pCR) based on immunological characteristics can assist in better classifying which breast cancer patients have a higher likelihood of response to neoadjuvant treatments.

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28631 – METASTASIS OF MAMMARY CARCINOMA IN ENDOMETRIAL POLYP

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Introduction: Metastases of mammary carcinomas to female genital tract organs are rare, and when present, the most common site is the ovaries (88%), followed by the vagina (6%). The estimated prevalence for uterine metastases is about 8%, with the majority occurring in the myometrium. Endometrial metastases occur in 4% of cases but are uncommon in the form of a polyp, with few cases described in the literature. Lobular tumors, although less frequent than ductal tumors in terms of overall prevalence, are the ones that most metastasize to the genital tract, accounting for about 80% of cases. Of the 17 cases reported in the literature, most patients had a history of vaginal bleeding associated with tamoxifen use. The treatment for this type of metastasis is still not defined, with hysterectomy associated with salpingo-oophorectomy followed by palliative chemotherapy being more common. However, some studies describe only polypectomy.
Conclusion: Metastases of mammary carcinoma to an endometrial polyp are extremely rare but should be included in the differential diagnosis in patients diagnosed with lobular carcinoma.

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28579 – PERFORMANCE OF BREAST SURGEONS IN MANAGING HEREDITARY PREDISPOSITION TO CANCER

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Introduction: Genetic testing is a highly relevant tool for the management and treatment of neoplasms, particularly breast cancer, due to its high hereditary predisposition to cancer (HPC) — accounting for around 10% of all cases. In this context, the American Society of Clinical Oncology emphasizes the importance of healthcare professionals' awareness of hereditary cancer risk in clinical practice and aims to prevent it. However, multi-gene panel testing becomes challenging due to the presence of pathogenic mutations with undefined risks and a high rate of variants of uncertain significance (VUS). Thus, this analysis of knowledge in HPC among breast surgeons is presented. **Methodology**: A survey was conducted through major media channels (email and WhatsApp groups) using an online questionnaire created with Google Forms. The target audience of the research was breast surgeons. Questions addressed the social profile of each professional (years of experience, workplace), as well as their knowledge about HPC (level of suspicion, request, and interpretation of the test). **Conclusion**: After analyzing the survey, it was concluded that although the vast majority of breast surgeons have suspected HPC, 20% do not request genetic testing, and 10% do not understand the meaning of the main genetic variants of breast cancer, revealing a notable lack of knowledge. Furthermore, it is concerning to practice oncogenetics without patient counseling. Therefore, it is of great importance that teaching and updating tools are implemented.

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28607 – BROWN SPIDER BITE ON THE BREAST: A CASE REPORT

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Introduction: In the literature, there are few descriptions of breast diseases resulting from Loxosceles (brown spider) bites. Due to its importance and the severity of this condition, we must always be attentive to situations that may occur in our environment. Loxosceles, commonly known as the brown spider, is prevalent in the state. Its bite often goes unnoticed, as it is almost always painless. Identifying this cause is not always straightforward, as there are several similar species that are not venomous, and the lesion is not pathognomonic from the outset. However, the progression of the condition leads to a dry and painful lesion with a "target-like" appearance, featuring a hyperemic halo and an ischemic or necrotic center. In the breast region, necrosis can be extensive due to the high amount of fat, potentially requiring emergency intervention. **Case Report**: The on-call physician contacted the Poison Control Center (CIT) via telephone to discuss the case: a 64-year-old woman with a history of blisters and hyperemia in the left breast associated with headache, fever, and nausea for 16 hours. The patient reported finding a spider inside her blouse. After analyzing images of the lesion and the spider at the CIT, the hypothesis of a Loxosceles bite was raised, and the request for laboratory tests (qualitative urinalysis, complete blood count, serum urea, and serum creatinine), prednisone 40 mg/day for five days, and reevaluation of the lesion within 24 hours was advised. The patient returned two days later (more than 72 hours after the bite) with normal laboratory results but with a necrotic, painful lesion and hyperemia throughout the left breast. At this point, surgical evaluation and treatment were indicated to discuss the need for debridement due to the impossibility of administering antivenom (anti-Loxosceles or anti-arachnid serum), which is only effective within the first 72 hours after the bite. **Conclusion**: The authors emphasize the urgency of care and treatment in cases of Loxosceles envenomation.

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28585 – ANALYSIS OF THE AVERAGE TIME TO RECEIVE HISTOLOGICAL DIAGNOSIS OF BREAST PATHOLOGIES IN BRAZIL

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Introduction: Breast cancer is the leading cause of cancer-related deaths among Brazilian women. Early diagnosis is crucial to increase the chances of cure, and histopathology is fundamental for the correct diagnosis and medical management. It is an essential component of the process. This article analyzes the average time to receive the histopathological diagnosis of breast pathologies in Brazil, considering Law 12.732/2012, which guarantees individuals with suspected breast cancer the performance of necessary diagnostic tests within 30 days. **Methodology**: An ecological, retrospective, quantitative, and descriptive study, whose data were obtained from consultations in the Cancer Information System – SISCAN (cervix and breast), through the platform of the Department of Informatics of the Unified Health System (DATASUS), referring to the period from 2013 to 2023, in all 26 states of the Brazilian federation, including the Federal District. The analysis also considered the distribution of results by waiting time (up to 30 days, 31–60 days, and more than 60 days). **Conclusion**: The average time of 35.4 days to receive the histopathological diagnosis of breast pathologies in Brazil is in line with the recommendation of the Brazilian Society of Pathology (SBP), which is up to 45 days. However, it does not correspond to the deadline stipulated by Law 12.732/2012, which guarantees individuals with suspected breast cancer the performance of necessary diagnostic tests within 30 days. Additionally, it is important to note that some states and regions of the country do not respect the deadline of either regulatory body, such as the North and Northeast regions, which presented the longest average times, with 52 and 50 days, respectively. Issues such as location, demand, and case complexity may be some of the factors influencing the delay in the release of histological reports. Furthermore, we emphasize that the availability of human and material resources to perform histopathological exams varies between states. The high demand for exams can lead to increased waiting times, especially in Northeastern states, which have high numbers of histology exams for breast pathologies. Therefore, aiming to reduce regional disparities, investing in infrastructure and professional training to reduce waiting times in states with longer average times is essential, in addition to expanding the availability of histopathological exams to reduce the waiting list.

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28586 – ANALYSIS OF THE ACCURACY OF IMAGING EXAMS FOR THE DETECTION OF MALIGNANT BREAST LESIONS

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Introduction: Breast cancer is the most prevalent neoplasm among women worldwide, with a significant impact on public health and the quality of life of women affected by this pathology. The Breast Imaging Reporting and Data System (BIRADS), led by the American College of Radiology (ACR), emerged in the 1990s as a crucial tool in the global context of reducing breast cancer mortality, offering a standardized system for the evaluation of breast images and the classification of findings, facilitating communication between radiologists and other healthcare professionals. **Methodology**: An ecological, retrospective, quantitative, and descriptive study, whose data were obtained from consultations in the Cancer Information System – SISCAN (cervix and breast), through the platform of the Department of Informatics of the Unified Health System (DATASUS), referring to the period from 2013 to 2023, in the five geographic regions of Brazil. **Conclusion**: Based on the data analyzed during the decade from 2013 to 2023, it is concluded that the presence of nodules in mammography exams presents a pre-test probability of more than 30% of representing a malignant breast pathology, followed by distortion of one of the breasts, with a pre-test probability of about 29.1% — both signs that can be assessed with a detailed physical examination of the breast. Findings such as microcalcifications have a pre-test probability of 26.3%, and asymmetry has an 18.9% chance of being malignant. Therefore, although the BIRADS system has shown significant evolution in the diagnosis and management of breast cancer mortality control, we observe that clinical signs and a detailed physical examination of the breast alone can already assist in faster access for patients with suspicious signs of malignant breast pathologies to histological exams that confirm the diagnosis, considering the high pre-test probability of nodules and breast distortions representing malignant pathologies. We therefore advocate for the need for adequate training for the screening and diagnosis of possible breast neoplasms, focusing on changes in the outpatient breast examination in clinics and screening centers, especially in places where access to imaging methods is precarious and costly, facilitating patient access to histological biopsy in certain situations.

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28581 – PSEUDOLACTATIONAL SECRETORY HYPERPLASIA (PREGNANCY-LIKE HYPERPLASIA) WITH ATYPIA: A CASE SERIES AND LITERATURE REVIEW

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Introduction: Pseudolactational secretory hyperplasia (PLH) or pregnancy-like (pseudolactational) hyperplasia is a rare condition associated with an incidental finding in biopsies investigating benign and malignant breast lesions. These lesions affect non-pregnant women, typically between the 4th and 6th decades of life, with no described relationship to prior oncological diagnosis or previous pregnancy and lactation. Its frequency is approximately 3%, considering findings from surgical and autopsy reports. Histologically, they are lobulocentric epithelial lesions with characteristic intra- and extracellular secretions, similar to lactational changes. Additionally, they often present cytological alterations with nuclear atypia, which may exhibit atypical ductal hyperplasia, ductal carcinoma ***in situ***, and, more rarely, associated intraluminal calcifications, which may be the mammographic sign indicating the need for biopsy. Hypersecretory cystic hyperplasia (HCH) is a histological condition that may be associated with PLH in 33% of cases. The relationship between PLH with atypia and HCH and the development of breast carcinoma is not well defined, and surgical excision of the biopsied lesion is indicated for diagnostic confirmation. Methodology: Case series report with a review of medical records and literature on the topic. **Conclusion**: Pseudolactational hyperplasia is a rare breast alteration that presents as microcalcifications or a mass lesion on imaging exams, diagnosed through histopathological and immunohistochemical studies by biopsy. Surgical treatment is indicated in the presence of morphological criteria for precursor lesions of neoplasia, as demonstrated in one of the cases. This highlights the importance of resecting the area of PLH with atypia to rule out the association with breast carcinoma ***in situ.***

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28488 – DETECTION, ISOLATION, AND CHARACTERIZATION OF VIABLE BOVINE LEUKEMIA VIRUS IN FRESH MAMMARY TISSUE AND HUMAN LEUKOCYTES

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Introduction: Bovine leukemia virus (BLV) is the etiological agent of enzootic bovine leukosis. It infects immune system cells, mammary gland cells, and endothelial cells in cattle. Affected animals can be asymptomatic, exhibit persistent lymphocytosis, or develop B-cell lymphomas. The most severe clinical form of the disease occurs in less than 10% of cases. Increasing evidence suggests that humans can be infected with BLV and that it may be associated with the development of breast cancer in women. **Conclusion**: Only one published study reports the detection of BLV DNA in fresh mammary tissue samples from Colombian women. Some limitations related to the execution of the tests or the collection of fresh tissue may have resulted in a lower than expected frequency of positives, compared to those found in Colombia in 2021. However, the negative results in leukocytes and formalin-fixed paraffin-embedded (FFPE) tissues support the hypothesis that, for the most part, the women in the study were not infected with BLV.

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28578 – MAMMARY HIDRADENOCARCINOMA AND INVASIVE LOBULAR CARCINOMA: A CHALLENGING CASE

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Introduction: Ulcerated apocrine hidradenocarcinoma of the breast is a rare and aggressive form of breast cancer that arises from the mammary sweat glands, accounting for less than 0.1% of all breast neoplasms. It is characterized by ulceration and an aggressive biological behavior. Despite its rarity, it presents significant diagnostic and therapeutic challenges due to its aggressive nature and potential for metastasis. Therefore, a comprehensive understanding of this condition, as well as its association with other tumors, is crucial for effective diagnosis and treatment. **Methodology**: A systematic search was conducted across various electronic databases: the United States National Library of Medicine (PubMed), UpToDate, ClinicalKey, and Science Direct. Inclusion criteria were limited to published case reports, including patients diagnosed with apocrine hidradenocarcinoma of the breast and the potential association with other tumors. Two independent reviewers selected articles based on eligibility and performed data extraction. A total of 34 articles were selected for this review. **Conclusion**: Apocrine hidradenocarcinoma of the breast presents as a rare and aggressive subtype of breast cancer. Given its scarcity, a comprehensive analysis of case reports is essential to understand its clinical features, diagnosis, and management strategies. Despite limitations in the available evidence, this study enhances our knowledge of apocrine hidradenocarcinoma of the breast and underscores the need for further research to establish standardized guidelines for its optimal management. The association with other breast tumors, especially lobular types, opens new avenues for understanding tumor biology and developing more effective therapeutic strategies. Further studies are needed to elucidate the mechanisms underlying this association and to improve clinical outcomes for patients with mammary hidradenocarcinoma.

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28639 – RARE CASE OF MALE MAMMARY PSEUDOANGIOMATOUS HYPERPLASIA WITH LITERATURE REVIEW

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Introduction: Pseudoangiomatous stromal hyperplasia (PASH) is a benign mesenchymal proliferative lesion of the breast. The initial description was made by Vuitch et al. (1986) as non-hemorrhagic, roughly circumscribed breast nodules consisting of mammary stromal proliferations that mimic vascular lesions, initially described in women. This condition is more common in women but can also occur in men, although less frequently. **Methodology**: To conduct this study, a search was performed in the main medical databases, including the U.S. National Library of Medicine (PubMed), Scopus, and Web of Science, using the terms "pseudoangiomatous hyperplasia of the male breast" and "pseudoangiomatous hyperplasia of the breast." Relevant articles describing cases of pseudoangiomatous hyperplasia in men were selected, emphasizing clinical, histopathological, and therapeutic features. The rarity of this condition in men and the importance of reporting and studying these cases for better understanding and management of the pathology are highlighted. **Conclusion**: In conclusion, pseudoangiomatous hyperplasia of the male breast is a benign but uncommon condition that requires careful attention during diagnosis and treatment. Investigating cases like the one described in this study contributes to the knowledge and understanding of this nosological entity, aiding clinical practice and appropriate patient management. It is essential for healthcare professionals to be familiar with this pathology and to consider its occurrence even in atypical cases, such as in males.

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28577 – TEMPORAL ANALYSIS OF BREAST CANCER IN SANTA CATARINA (2019–2023): UNCOVERING THE EFFECTS OF COVID-19 ON BREAST HEALTH

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Introduction: According to the National Cancer Institute José Alencar Gomes da Silva (INCA), the estimates for each year of the 2020–2022 triennium are 625,000 new cases of malignant neoplasms, with breast cancer being the most incident in women and responsible for 7% of deaths worldwide. Therefore, understanding the landscape of breast cancer in Santa Catarina will provide valuable information for planning and implementing more effective and targeted health policies. **Methodology**: The study is based on multiple sources, including reports from INCA, the Global Cancer Observatory, the Ministry of Health, the Brazilian Institute of Geography and Statistics, and the World Health Organization. It also considers the effects of the COVID-19 pandemic on screening and early detection of breast cancer. The role of national health programs, such as the National Breast Cancer Control Program, and the use of information systems like the National Cancer Information System and the Breast Cancer Control Program Information System are emphasized. **Conclusion**: In summary, this descriptive, ecological, and retrospective study analyzed the landscape of breast cancer in Santa Catarina from 2019 to 2023. The results highlight the importance of mammography, consultations with mastologists, and cytology and histology exams for early detection and proper treatment of breast cancer. Additionally, there is a need for health policies that encourage screening and ensure equitable access to health services across all age groups. It is crucial to adopt measures to mitigate the effects of the COVID-19 pandemic on health service utilization, ensuring that early detection and treatment of breast cancer are not compromised, thereby preventing more women from dying from the disease..

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28617 – RYETOMIES ASSOCIATED WITH LIPOTRANSFERENCE FOR ONCOPLASTIC REFINEMENT

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Introduction: Lipofilling has been increasingly prominent among breast surgery refinement techniques, with a growing number of indications and a significant impact on enhancing aesthetic outcomes, demonstrating safety from an oncological perspective. Additionally, adipose tissue possesses regenerative potential related to the presence of mesenchymal stem cells. Combining this technique with rigotomies constitutes an effective therapeutic strategy for repairing pathological scars and restoring volume for breast symmetrization. **Methodology**: This is a case report from the Mastology Department at the Hospital de Clínicas de Porto Alegre. **Conclusion**: In oncoplastic breast surgery, lipofilling has rapidly gained popularity due to the rising demand for breast reconstruction and patients' increased expectations for better aesthetic results. "Rigotomies," a term named in honor of Gino Rigotti who described the technique, are commonly used to release and expand scars, creating multiple small cuts within the contracted tissue. This technique transforms the scar into a three-dimensional mesh, increasing the volume of the recipient bed and thus reducing interstitial fluid pressure, which enhances graft survival. When performing megavolume lipofilling (transfers exceeding 250 mL), this procedure should also be carried out to decrease interstitial fluid pressure and improve oxigenation of the grafted tissue. In the presented case, the technique was used for two purposes: releasing fibrosis beneath the surgical scar and increasing the three-dimensional mesh to facilitate megavolume lipofilling. Incorporating the rigotomy technique into surgical practice allows for final cosmetic refinement and may reduce the need for additional aesthetic procedures.

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28618 – RECONSTRUCTION WITH A PLUG-FLAP BASED ON THE LATERAL INTERCOSTAL PERFORATING ARTERY

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Introduction: Currently, it is understood that routine skin resection over the tumor is unnecessary unless the skin is involved. When required, depending on the affected region, oncoplastic techniques are used to restore the shape, volume, and symmetry of the breasts. Defects located in the lower quadrants of the breast are addressed through established mammoplasty techniques, provided there is sufficient residual volume for reconstruction. Tumors in the upper quadrants fall outside the scope of conventional mammoplasty approaches and thus require alternative coverage methods, such as the latissimus dorsi flap, Burow triangle reconstruction, and other geometric compensation techniques. In 1993, Brazilian plastic surgeon José Carlos Daher described the island flap technique ("plug flap"), where a skin island remains in the flap to cover the excised area. **Methodology**: This is a case report from the Mastology Department at the Hospital de Clínicas de Porto Alegre. **Conclusion**: Knowledge of different oncoplastic techniques enables the mastologist to address a wide variety of defects. The technique used here was chosen to ensure adequate coverage of the skin defect, maintain breast symmetry, and restore lost volume. For this procedure, a skin island was marked caudal to the inframammary fold, followed by decortication of the flap's base while preserving the skin island to cover the defect. The perforator vessels of the 5th and 6th intercostal spaces, originating from the lateral intercostal artery, were identified. Once the pedicle was located, an incision was made as needed until an adequate rotation arc was achieved, allowing the flap to be positioned without compression. The flap was then rotated to shape the breast, maintaining its conical form and avoiding depressions caused by sutures. The current state-of-the-art in breast reconstruction is grounded in well-established historical pillars, providing the foundation for refined, high-demand techniques that require artistic skill and meticulous preparation..

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28644 – POST-RADIATION MORPHEA AS A COMPLICATION OF TREATMENT FOR INVASIVE DUCTAL CARCINOMA: A CASE REPORT

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Introduction: Invasive ductal carcinoma (IDC) is the most common histological type of breast cancer, accounting for between 80% and 90% of cases. Treatment typically involves surgical removal of the tumor. Depending on the staging of the disease, hormonal therapy, chemotherapy, or radiotherapy (RT) may be necessary. Although RT has proven to be an excellent therapy for IDC, significantly reducing local recurrence and increasing survival rates, only about 10% of cases are without complications. Post-radiation morphea (PRM), also known as localized scleroderma, is a rare complication associated with radiotherapy, affecting two out of every thousand patients. It involves a circumscribed inflammation with collagen accumulation in the dermis, which can progress to fibrosis of the affected tissues. Due to its rarity, PRM is often mistaken for radiation-induced fibrosis or even infectious conditions. Treatment for PRM includes antibiotics, corticosteroids, and phototherapy, with surgical removal reserved as a last resort. Although rare, PRM can lead to significant complications, highlighting the importance of accurate diagnosis and appropriate management. **Case Report:** A 66-year-old woman with a prior medical history of chronic obstructive pulmonary disease, previous hysterectomy, and saphenectomy; family history of cancers—sister deceased from breast tumor, father a smoker who died of lung cancer, and mother deceased from colorectal tumor. During a gynecological review and screening examination, a lesion was detected in the right breast. Clinically, it appeared as a palpable lesion at the union of the upper quadrants of the right breast. Histopathological analysis (HPA) concluded the lesion was an invasive ductal carcinoma. HPA Results: estrogen receptors positive (70%), Ki-67 nuclear protein present (25%), and epidermal growth factor receptor 2 (HER-2) indeterminate but positive on fluorescence in situ hybridization (FISH). The initial treatment plan involved neoadjuvant immunotherapy with monoclonal antibodies Paclitaxel, Trastuzumab, and Pertuzumab. Subsequently, quadrantectomy of the right breast and sentinel lymph node biopsy were performed. Based on histopathological staging, the tumor was classified as ypT1aN0. The subsequent plan included radiotherapy with Trastuzumab and Anastrozole. After some treatment time, the patient developed pain in the previously treated breast, along with skin color changes and retraction. A biopsy was performed, which showed mild ductal dilation and isolated stromal calcification, without signs of inflammatory process. The skin exhibited dermal and hypodermal sclerosis with perivascular lymphoplasmacytic inflammatory infiltrate in both tissue layers. Thus, the possibility of PRM was considered. **Conclusion**: Although rare, post-radiation morphea is a radiological treatment reaction that requires early diagnosis to optimize therapeutic response and prevent more severe prognoses. Patients with breast cancer have a higher prevalence, with initial signs potentially manifesting acutely or even years after radiotherapy. Therefore, early detection of this complication is crucial to prevent irreversible tissue damage and sequelae, given the current available therapeutic options.

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28615 – CRYOABLATION IN THE TREATMENT OF EARLY BREAST CANCER: RESULTS FROM THE STUDY FREEZING BREAST CANCER IN BRAZIL (FIRST)

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Introduction: Image-guided tumor ablation is a minimally invasive, non-surgical therapy available for local treatment of carcinomas, offering an alternative to surgery. However, studies evaluating this therapy in early breast cancer have reported variable success rates, raising the question of whether omitting surgery is a viable option. Ongoing studies, such as the FROST and ICE3 trials, may alter the landscape of cryoablation in the treatment of early breast cancer. In the era of minimally invasive treatment, the search for ablative therapies like cryoablation has emerged as a treatment option. **Methodology**: This is a multicenter, non-randomized, single-arm, before-and-after clinical trial. Inclusion criteria include patients with unifocal invasive breast carcinoma, tumors ≤2.5 cm, lesions visualized by ultrasound, and surgery indicated as the primary treatment option. Exclusion criteria include ductal carcinoma in situ, multifocal or multicentric tumors, clinical axillary involvement, lesion-to-skin distance less than 5 mm, presence of distant metastases, and neoadjuvant treatment. All patients will undergo local cryoablation followed by conventional surgical treatment 14 to 28 days later. Imaging exams (mammography, ultrasound, and breast MRI) will be performed before and after ablation. The efficacy of cryoablation will be assessed based on the success rate, defined as the absence of malignant neoplastic cells, both invasive and in situ, in the surgical specimen. If the expected success rate of cryoablation is similar to the 92% rate reported in the ACOSOG Z1072 study for patients without multifocal disease, a minimum of 32 patients will be necessary to determine if the technique is satisfactory (success rate >70%), with 95% statistical power and a 5% significance level. This study was approved by the local Ethics Committee and registered on ClinicalTrials.gov (NCT05398497). **Conclusion**: The results highlight cryoablation as a promising therapy, providing a viable alternative to surgical approaches in patients with early-stage breast cancer, as demonstrated in this study. The ongoing advancement of minimally invasive therapies consolidates cryoablation as an option in the treatment of early breast cancer.