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

Tarciane Campos Ramalho[1], Rafael Victor Moita Minervino[2], Isabela Campos Ramalho[2], Jean Fabricio de Lima Pereira[3], Og Arnaud Rodrigues[4]

[1]Hospital Municipal Santa Isabel – João Pessoa (PB), Brazil.
[2]Centro Universitário de João Pessoa – João Pessoa (PB), Brazil.
[3]Centro Paraibano de Oncologia – João Pessoa (PB), Brazil.
[4]Oncovida – João Pessoa (PB), Brazil.

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