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BREAST CARCINOMA WITH OSTEOCLAST-LIKE GIANT CELLS: A CASE REPORT

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Introduction: Breast carcinoma with osteoclastic giant cells (OGCs) is rare. According to the WHO classification, breast tumors are designated "carcinoma with osteoclast-like giant cells" and are categorized under invasive carcinoma of no special type. This distinct subtype of breast carcinoma was first described in the French medical literature by Leroux in 1931 and Duboucher et al. in 1933. We reported a case study of a woman with OGCs with an invasive ductal and papillary carcinoma. **Case Presentation:** A 69-year-old female presented with left-sided breast lump. Ultrasound study documented the well-circumscribed retroareolar hypoechoic mass, measuring 3.5 cm in greatest dimension. Computed tomography scan and bone scan showed no evidence of distant metastasis. The patient underwent left breast mastectomy and sentinel lymph node biopsy. The tissue was fixed in 10% buffered formalin and embedded in paraffin. Hematoxylin and eosin–stained sections revealed a tumor composed of papillary intracystic carcinoma with a prominent OGC component. The background stroma revealed hemorrhage and hemosiderin deposition. Left axillary sentinel lymph node was free of malignancy (pN0). Tumor cells stained negative for estrogen receptor, progesterone receptor, and HERneu-2. Ki-67 positive was approximately 30%. After surgery, this patient received taxane-based chemotherapy for four cycles and post-mastectomy radiotherapy. **Discussion**: Breast carcinoma with OGCs is characterized by the presence of OGCs admixed with malignant epithelial cells. They often showed hyperchromatic nuclei that are atypical with occasional small nucleoli and fine chromatin structure. Mitotic figures are typically rare. The mechanism for the formation of OGCs is still unknown and is at least partially attributed to tumor-induced angiogenesis and inflammatory cytokines. To date, the influence of OGCs on the prognosis of patients is still controversial. We described an old woman with a triple-negative breast carcinoma with OGCs. She remains free of recurrence, with an 18-month follow-up.

Keywords: Breast Carcinoma; Osteoclast-Like Giant Cells; Tumor Metastasis; Prognosis.