

Metaplastic Breast Carcinoma: what the oncology team should know.

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BACKGROUND: Metaplastic carcinomas of the breast (MCB) account for less than 1% of all invasive breast carcinomas. The average age at diagnosis is 47, and over 50% of patients will develop metastatic disease within 5 years of the diagnosis, with high risk of recurrence after the initial treatment, features of an aggressive tumor. Some series also show that they have poorer response to adjuvant chemotherapy compared to other triple negative tumors.

HYPOTHESIS: The MCB include a rare and heterogeneous group of malignancies of high-grade nature. They are characterized by unusual and varied histomorphology, faster clinical course and an apparent poorer response to adjuvant chemotherapy. Still, such tumors are little known, often not recognized and misunderstood in the medical community

METHODS: It was revised the literature concerning the metaplastic carcinoma of the breast, to describe clinical course, pathological and radiological findings, prognosis and current therapy of this malignancy.

RESULTS: MCB is characterized histomorphologically by the coexistence of carcinomatous and sarcomatous components. They have recently been recognized as basal-like tumors, which means they are hormone receptor negative, human epidermal growth factor receptor 2 negative, and cytokeratin 5/6 and/or epidermal growth factor receptor positive. Clinically, MCB also behaves differently to ordinary invasive ductal carcinoma: it presents with larger tumor size, lower incidence of axillary nodal involvement, higher tumor grade and hormone receptor negativity. At imaging, these lesions behave differently from the traditional spiculated masses associated to ductal invasive carcinomas. In turn, they usually present as a rounded or lobulated margins mass with central necrosis. The outcome in MCB is generally poor with a high risk of recurrence despite the fact that it has generally not spread to the lymph nodes at presentation. Patients with MCB do not benefit from conventional cytotoxic chemotherapy or hormone therapy.