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TRIPLE-NEGATIVE BREAST CARCINOMAS AS TUMORS UNTRACEABLE BY CONVENTIONAL RADIOLOGICAL METHODS: A RETROSPECTIVE COHORT

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Introduction: Invasive breast carcinoma represents a heterogeneous group of lesions that differ in their molecular and histological characteristics. Perou et al. evaluated breast tumors using the DNA microarray technique and classified them into four molecular subtypes: Luminal A (LA), Luminal B (LB), HER2 overexpression (HER2), and triple-negative (TN). Immunohistochemistry approximately identifies the subtypes. The TN subtype is negative for estrogen and progesterone receptors and HER2 protein. This subgroup is comprehensive, with 75% of them being basaloid, that is, cells with a molecular profile similar to that of myoepithelial cells and a high expression 5, 6, 14, and 17 cytokeratins, vimentin, and P-cadherin. These tumors tend to be more aggressive, have higher rates of cell proliferation, and, therefore, a worse prognosis. Clinically, triple-negative carcinomas are more strongly associated with younger patients, early local and distant recurrence. Given their rapid progression, they can be clinically diagnosed in the interval of screening tests. **Objective:** To compare clinical and radiological aspects of TN and other molecular subtypes of breast cancer at diagnosis. **Method:** The study retrospectively evaluated data collected from medical records of patients diagnosed with breast cancer and treated at the Hospital São Paulo from 2013 to 2016. **Results:** In the study period, 235 cases of breast cancer were diagnosed. The incidence in patients under 39 years was 4.2% for LA, 4.9% for LB, and 8.3% for TN. At diagnosis, 83% of patients with TN tumors had clinical complaints, of which 96% were nodules. In mammographies, TN presented as nodules in 100% of cases, LA in 68%, LB in 71%, and HER2 in 50%. Microcalcifications were identified in 14% of LA cases, 21% of LB, and 50% of HER2. TN had no cases of microcalcifications or asymmetries. Among the other subtypes, the diagnosis by physical examination represented 35% to 53% of cases. As to the staging at diagnosis, TN cases presented ≤ 2 cm tumors in 25% of cases. The LA, LB, and HER2 subtypes presented as ≤ 2 cm tumors, respectively, in 61%, 49.4%, and 43% of patients. Lymph node involvement by neoplasm at diagnosis occurred in 3.35%, 17.5%, 14.3%, and 33.3% of LA, LB, HER2, and TN cases, respectively. **Conclusion:** TN carcinomas affect a greater number of young patients, outside the screening age group. In our sample, TN tumors were diagnosed based on clinical complaints and showed no association with non-palpable breast lesions. TN is the subtype with the highest probability of interval tumors, untraceable by conventional exams, and, as a result, other screening options, such as serum assays, have been discussed.