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A MULTICENTRIC STUDY ON BREAST CANCER IN ULTRA YOUNG WOMEN: II – HISTOPATHOLOGIC AND MOLECULAR DATA

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Introduction: Ultra young women (UYW) is defined as women aged up to 30 years. UYW with BC share some unfavorable biological tumor characteristics as larger size at diagnosis, higher loca-regional recurrence rate and lower survival, and have been merited specialized care. **Objectives**: We aimed to determine histopathological and molecular characteristics of BC in UYW. **Methods**: We carried out a multicentric, observational, retrospective study of consecutive UYW patients with BC. Only patients with infiltrating BC were included. Nine Mastology Centers located in the State of São Paulo took part in the research. The follow data were recorded: pathological tumor histology, number of positive lymph nodes multicentricity/multifocality, presence or absence of peritumoral vascular invasion (PVI), histologic grade (HG), pT category, estrogen receptor (ER), progesterone receptor (PR), HER2 and Ki67. We classified the neoplasias into five molecular subtypes by immunohistochemistry, based on modified recommendations of St. Gallen Consensus (2013): Luminal A-like, Luminal B-like HER2-, Luminal B-like HER2+, HER2 overexpressed (HER2+) non luminal and Triple-Negative. The frequency of the analysed parameters were calculated. The research protocol was approved by the Ethics Committee of all Collaborative Centers. Individual informed consent was waived. **Results**: Invasive carcinoma of no special type (NST) was observed in 243 patients (88%), and infiltrative lobular tumor was extremely rare, being found in 1.1%. The tumor size in surgical specimens was above 20 mm in 54% (in 10% there was no more evidence of tumor after neoadjuvant treatment). We found 52.6% of patients without invasion in lymph nodes (LN) whereas in 22.2% there was more than four LNs involved. Multifocality was seen in 12.4%. HG was 2 or 3 in 98.3%. In 67.5% the tumors expressed ER, 59.4% gR, and 25.1% were HER2+. In 61.5% Ki67 was higher than 20%. Tumor molecular subtypes were classified in 16.6% Luminal A-like, 35.9% Luminal B-like HER2-, 15.1% Luminal B-like HER2+, 9.3% HER2+ non-luminal and in 22.9% Basal-like. **Conclusions**: Our data from UYW with BC revealed unfavorable characteristics, with frequent adverse pathological and molecular prognostic factors.