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FEATURES AND PROGNOSIS OF STAGES I–IV BREAST CANCER SUBTYPES AT THE CLINICAL HOSPITAL OF BOTUCATU MEDICAL SCHOOL – UNESP

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Objective: This study is proposed to assess the survival of patients with breast cancer according to the molecular classifications estimated by immunohistochemistry (IHC) and to evaluate the importance of Ki-67 proliferation index in the distinction of luminal subgroups and as a prognostic factor for Brazilian women with breast cancer in clinical stages I–IV. **Methods:** This is a retrospective, observational cohort study that included 842 patients with invasive breast cancer diagnosed between 2009 and 2016 who were treated at the Clinical Hospital of Botucatu Medical School – UNESP. Data collection was performed from June 2020 to May 2021 with the observation of a minimum survival time of 5 years and a maximum of 12 years. The study was approved by the institution's ethics committee. Inclusion criteria were women with at least 18 years of age who were diagnosed with invasive breast carcinoma registered as new cases in stages I–IV between 2009 and 2016 and whose treatment was initiated at the Clinical Hospital of Botucatu Medical School – UNESP. Data were collected from electronic medical records and inserted into an Excel spreadsheet. After this evaluation, breast cancer was categorized into five molecular subtypes based on immunohistochemical profiles according to the following classification:

1- Luminal Ki-67 >10% Classification

“Luminal A”: ER positive, PR positive, HER2 negative and Ki-67 \leq 10%

“Luminal B”: ER positive, PR positive or negative, HER2 negative and Ki-67 >10%

“Luminal B-HER2 positive (hybrid): ER positive, PR positive or negative, HER2 positive, any Ki-67 index

“HER2-enriched”: ER negative, PR negative and HER2 positive with any Ki-67 index

“Triple negative”: ER negative, PR negative, HER2 negative with any Ki-67 index

2- Luminal Ki-67 >20% Classification

“Luminal A”: ER positive, PR positive, HER2 negative and Ki-67 \leq 20%

“Luminal B”: ER positive, PR positive or negative, HER2 negative and Ki-67 >20%

“Luminal B-HER2 positive (hybrid): ER positive, PR positive or negative, HER2 positive, any Ki-67 index

“HER2-enriched”: ER negative, PR negative and HER2 positive with any Ki-67 index

“Triple negative”: ER negative, PR negative, HER2 negative with any Ki-67 index

Another stratification using only Ki-67 index as reference was performed:

3- Ki-67 >10% Classification

Group 1: Ki-67 \leq 10%

Group 2: Ki-67 >10%