501 - MOLECULAR SUBTYPES OF BREAST CANCER IN WOMEN SEEN AT A PUBLIC HOSPITAL IN THE FEDERAL DISTRICT

Rosana Zabulon Feijó Belluco[1], Melissa de Andrade Baqueiro[2], Flávio Lúcio Vasconcelos[2], Paulo Eduardo Silva Belluco[1], Carmelia Matos Santiago Reis[1]

[1]Escola Superior de Ciências da Saúde – Brasília (DF), Brazil.
[2]Hospital Regional da Asa Norte – Brasília (DF), Brazil.

Introduction: Breast cancer is the most common neoplasm among women worldwide. The advent of genetic studies and DNA microarrays and their proteins had made it possible to correlate the patterns of gene expression of each type of cancer in different women, associate them with other prognostic factors, and verify the clinical evolution and therapeutic response. The immunohistochemistry (IHC) technique is based on the detection of protein cellular constituents — antigens — and based on the identification and classification of specific cells in the tissue sample. Immunohistochemical panels have been traced to determine breast cancer subtypes, to reproduce gene expression profiles, which have specific treatments. Different molecular subtypes have been established associated with differences in survival and treatment. The four main types in clinical practice are luminal A, luminal B, HER2 overexpression, and triple negative. ***Objective:*** The aim of this study was to trace the epidemiological profile of the molecular subtypes of breast cancer in women treated at the Hospital Regional da Asa Norte-Brasília, DF. ***Methods:*** Cross-sectional, longitudinal, and retrospective study through the analysis of 138 electronic medical records stored on the TrakCare® platform of cases of women diagnosed with breast cancer, with known histological type, and who underwent IHC examination to determine the molecular subtype. The study included women who attended between January 2015 and December 2020, in the Mastology Department of Hospital Regional da Asa Norte (HRAN). ***Results:*** The most common molecular subtype was luminal B, with 65 of the total cases, equivalent to 47.1%. Luminal A subtype was the subtype of 41 cases, equivalent to 29% and being the second most observed subtype. Triple negative was recorded in 21 of the cases, corresponding to 15.2%. The least observed subtype was HER2 overexpression, with 11 cases and 7.9% of the cases. Two participants had local recurrence within less than 2 years of diagnosis, changing from luminal A to luminal B, and luminal B to luminal A. The mean age of the women in the study at the time of diagnosis of breast cancer was 51.5 years, with age extremes of 17 and 86 years. ***Conclusion:*** The most prevalent molecular subtype in this sample studied was luminal B, corroborating other studies carried out in the Brazilian population and diverging from the international literature, in which it is the luminal A subtype. Epidemiological knowledge can guide the elaboration of public policies to improve the quality of care, such as drug planning and neoadjuvant and adjuvant treatments with the best results.