8. MALE BREAST CANCER: EPIDEMIOLOGY AND RISK FACTORS

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Introduction. Although the prevalence of breast cancer is significantly lower in men than in women, understanding the unique epidemiology and associated risk factors of breast cancer is of paramount importance. This study examines recent data on breast cancer cases among Moldovan men over the past five years and aims to elucidate breast cancer patterns and potential causes of the disease.

Aim of study. The study aims to analyze the epidemiology of male breast cancer in Moldova over the last five years, specifying risk factors.

Methods and materials. A comprehensive study was carried out to analyze the cases of male breast cancer reported in Moldova from 2019 to 2023. The data for this study were collected from national cancer registries, hospital records, and databases of the Institute of Oncology in Moldova. By examining the clinical characteristics and risk factor profiles, we aimed to gain a complete understanding of this disease.

Results. The study revealed in the last five years **(2019 – 2023),** a total **of 4636** cases of breast cancer were reported out of which **86** were in males accounting for **1.85%,** highlighting the lower number compared to female breast cancer. During this period the number of male breast cancer as per each year as follow-up **2019 – 14 cases**, with age range 35-39y/o (1),40-44y/o (1),45-49y/o (1),50-54(1),55-59y/o (2), 60-64y/o (2), 65-69y/o (2), 70-74 y/o. (2),75-79(1),85+y/o (1), **2020- 18 cases**, with age range 40-44y/o (1) ,45-49y/o (2) ,50-54(4), 60-64y/o (1), 65-69y/o (4), 70-74 y/o. (5), 80-84y/o (1), **2021 – 21 cases** with age range 30-34y/o (1), 35-39y/o (2) ,40-44y/o (2) ,50-54(1) ,55-59y/o (2), 60-64y/o (3), 65-69y/o (4), 70-74 y/o. (4),80-84y/o (1),85+y/o (1), **2022 – 20 cases**, with age range 30-34y/o (1),40-44y/o (1), 60-64y/o (6), 65-69y/o (4), 70-74 y/o. (3),75-79(2),80-84y/o (1),85+y/o (1) **2023 – 13 cases**. The average age at diagnosis was 60 years, with noteworthy distribution observed across different age groups. Several significant risk factors influence the development of male breast cancer. These include advancing age, hormonal imbalance, exposure to radiation, and having a family history of breast cancer. In particular, the occurrence of male breast cancer can be associated with mutations in high- or low-penetrance genes. However, the most crucial risk factor for the development of male breast cancer is a mutation in the BRCA2 gene.

Conclusion. The study identified the lower prevalence of male breast cancer compared to female breast cancer over the past five years with an average age of 60 years, with the most crucial risk being a mutation in the BRCA2 gene.

Keywords. Epidemiology, Male breast cancer, Moldova, BRCA1, BRCA2, Risk factors.