## Breast Cancer in Very Young (Less Than 25 Yeras) Women: An Institutional Analysis from Developing Country

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Abstract : Background and Aims: Breast cancer in women aged less than 25 years (defined as very young breast cancer, VYBC) is rare and accounts for 0.25% of all breast cancer in the West. There is no data available on VYBC from developing countries. The aim of this study was to analyze the clinical, pathological, and prognostic factors and outcomes in VYBC. Methods: This retrospective analysis was performed on 80 patients aged 25 years or less (screened 8000 files of female BC) who were registered at All India Institute of Medical Sciences (AIIMS), New Delhi, India, over a 15-year period between 2011 and 2023. Results: The median age was 21.5 years (range 16-25). A positive family history (siblings and parents) was elicited in 30% of cases, and breast cancer gene (BRCA1/2) mutation was found in 33% of cases patients. Ten patients (12.5%) patients have pregnancy-associated breast cancer (BC detected during pregnancy or 1 year after postpartum period). The TNM stage distribution was Stage I was 0, stage II -30%, stage III -60% and Stage IV -10 % patients. Seventy percent of tumors were high grade, and 90% had pathological node-positive disease. Estrogen, Progesterone, and human epidermal growth factor receptor 2 (HER2)/neu positivity were 25%, 25% and 35%, respectively. Triple-negative breast cancer constituted 40% of patients. With a median follow-up of 42 months, 3 years, relapse-free survival (nonmetastatic disease), progression-free survival (metastatic disease) and overall survival were 30%, 15% and 50%, respectively. Conclusions: Very young women constituted 1% of all breast cancer cases. Advanced disease at presentation and high-risk pathological features result in poor outcomes. One-third of VYBCs are associated with BRCA mutation, which requires genetic counseling and risk reduction surgery if required. Due to the aggressive behavior of BC in this age group, need early diagnosis and prompt treatment

Keywords : very young, breast cancer, outcome, developing country, India

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