Breast cancer in young women

Part I: Epidemiology, risk factors and diagnosis

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Abstract Breast cancer is the leading cause of death in women under 30 years of age. In young women, breast tumors usually exhibit more aggressive features than their older counterparts, including larger tumor size, a higher incidence of poorly differentiated tumors, positive lymph nodes, high proliferation rates, higher incidence of HER2, a higher prevalence of basal-like histologic subtype, and the absence of endocrine receptors. After age, positive family history for breast cancer is among the highest risk factors for developing the disease. Approximately, 5–10% of breast cancers is considered directly related to inherited mutations in *BRCA1/BRCA2* genes. Women carrying these mutations have a lifetime risk of breast cancer of 60–80%.

Thus, genetic screening at the time of diagnosis is warranted in order to undertake opportune prophylactic measures. Digital mammography is the gold-standard for the diagnosis of breast cancer. However, due to particularities of the breast tissue in young women, ultrasound and magnetic resonance imaging are the preferred methods to diagnose no palpable breast lesions and to further characterize mammographic findings. Nonetheless, even if imaging studies are negative, suspicious breast masses should be biopsied under MRI or ultrasound guidance.

Conflict of interest The authors have no conflict of interest.

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