

Breast Cancer in Young Women: Survival and Outcomes in a Developing Country.

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Introduction: Breast cancer remains uncommon in young women. It has a more aggressive clinical course and poorer outcome; genetic predispositions are more common compared to older women. There is a paucity of data relating to management and outcomes in young breast cancer patients in developing countries.

Aim: We here report the clinical presentation, management, outcomes and genetic testing results of young women from a comprehensive breast center in South Africa.

Methods: Prospectively recorded data for new breast cancer cases in women aged 39 or younger diagnosed between 2003 and December 2017 were analyzed for clinicopathological features, BRCA status, treatment and survival. 5 and 10 year Survival estimates were computed using the Kaplan-Meier method.

Results: The average age at diagnosis was 34 with the youngest patient being 23. Seventy-eight patients had BRCA or multigene panel testing done; 21 were found to be disease causing mutation carriers. Three patients had a variant of unknown significance.

Ten patients presented with stage 0 (7.6%), 22 (16.8%) with stage 1, 70 (53.4%) with stage 2, 18 (13.7%) with stage 3 and 5 (3.8%) with stage 4 disease. 6 (4.6%) could not be staged clinically as they had surgery elsewhere prior to their presentation.

63% had luminal type breast cancer, 18% had Her2 positive disease and 15% had triple negative breast cancer (of which 4 patient were disease causing BRCA carriers). 9 patients were diagnosed with DCIS, 110 with infiltrating ductal carcinoma, 6 with infiltrating lobular carcinoma, 2 with mucinous, 2 with secretory carcinoma. 1 patient had a low grade phylloides tumour and 1 had a metaplastic carcinoma of the breast with sarcomatous metaplasia.

18 patients had simple mastectomies. 95 patients had mastectomies with immediate reconstruction: 53 with autologous tissue reconstruction and 42 with prosthetic reconstruction. 14 patients had tumour excisions and 5 patients had oncoplastic tumour excisions. 1 patient refused surgery.

Nineteen patients developed distant metastasis and 9 had local recurrences. Of the BRCA mutation carriers, 3 had local recurrences, 4 developed distant metastases at 14, 84 and 122 months and 1 patient died of disease at 29 months after also developing distant metastases at 21 months.

The 5 year and 10 year overall survival was 86.7% and 82.8%. The 5 and 10 year disease free survival was 84.6% and 74.6%. Results of a similar study published in 2009 in the NJS were significantly lower with 5 year overall and disease free survival at 20% and 8% respectively.

Conclusion: Young patients tend to present with more advanced disease. The outcome of young patients has improved dramatically over the past decade and this can be contributed to the availability of better and targeted systemic therapy.

