

ABSTRACT

Background: International trends have shown that female patients with unilateral breast cancer are electing bilateral mastectomies as a method of prophylaxis.

Objectives: The aim of the study was to determine the prevalence of unilateral mastectomies with and without contralateral prophylactic mastectomy (CPM) in one breast clinic service, as well as to identify the demographic and pathological characteristics which predict for the choice of CPM.

Patients and methods: A record review of pathological results and demographic details of female patients of all ages undergoing mastectomy for unilateral breast cancer from 2013-2015 was conducted at the Helen Joseph Breast Care Clinic in Johannesburg, South Africa, to compare patients who underwent a unilateral mastectomy without CPM to those that chose a mastectomy with CPM. The demographic information analysed included race, uniform patient fee scale (UPFS), or 'H' status, and age. The pathology of the breasts was analysed by weight of the breast, histology and TNM stage (early vs late) of the tumour and any histological findings of the contralateral side, as well as having received neoadjuvant therapy.

Results: In total, 299 women who had mastectomies for unilateral breast cancer were included in the study, 59 of whom also had CPM (19.7%). Significantly more White women opted for a CPM compared to Black women (43.5% vs 10.6%, respectively; $p < 0.0001$). The women who underwent CPMs had a trend for larger median weight of the breasts and were significantly younger than their unilateral counterparts ($p = 0.09$ and $p = 0.03$, respectively). There was no significant association for 'H' status, histology of tumour, TNM stage or neoadjuvant chemotherapy that predicted the choice of unilateral mastectomy vs mastectomy with CPM.

Conclusion: The demographic and histopathological characteristics influencing choice of CPM in our local population, although mirroring those of international literature in terms of race and age, are uniquely based on the special socio-economic circumstances of the country. Whether the trend of electing CPM when diagnosed with unilateral breast cancer is likely to increase is uncertain but there is evidence that young, White women of better economic status are more likely to have this procedure. Currently there does not seem to be an influence in the proportion of women electing CPM based on international trends, this is advantageous in that it is in keeping with maintaining a primarily evidence-based indication to performing a CPM on patients with unilateral breast cancer.

