Abstract

Background: Neoadjuvant chemotherapy (NACT) has evolved to become an integral component in the management of both early and locally advanced breast cancer. Histologic response classification systems make use of pathologic complete response (pCR) which is also a surrogate endpoint for estimation of long term clinical outcome such as disease free survival and overall survival. This study aimed to evaluate pCR rates and the use of histopathological reporting systems among breast cancer patients receiving NACT in two Johannesburg breast units.

Methods : This is a retrospective review of prospectively collected data from the South African Breast Cancer and HIV Outcomes (SABCHO) study. Patients were selected from the respective databases of two academic hospitals based in Johannesburg. All histopathological specimens were assessed by the National Health Laboratory Service (NHLS).

Results : A total of 399 patients were enrolled for NACT but only 321 proceeded to surgery. 40 patients (12.5%) had a pCR with tumour grade (P = 0.005), receptor status (P = 0.004) and clinical response being predictive values of a pCR (P = 0.038). 61 specimens were reported using the Sataloff method, 15 specimens were reported using the Miller-Payne method and the remaining majority had no documented classification system.

Conclusion: Our pCR rate of 12.5% is much lower than reported in other studies. Triple negative breast cancer achieved the highest pCR rates. Histopathological reporting post chemotherapy needs to improve and there should be uniformity in reporting.The Sataloff method is favoured as it easier to apply and takes into consideration tissue response both in the breast and lymph nodes.