

## **ABSTRACT**

**Title :** Assessment of Sentinel Lymph Node Using Methylene Blue Dye in Carcinoma Breast

**Key words :** Breast cancer, sentinel node biopsy, methylene blue dye, axillary dissection

Management of axilla is an integral part of treatment of carcinoma breast. Axillary lymph node dissection has a well-established role in regional disease control and it provides information about the histopathological status which has significant prognostic and therapeutic implications. However only around 30 percent of the clinically node negative patients prove to be histopathologically node positive which means that 70 percent of clinically node negative patients undergo axillary dissection and are exposed to its morbidities like neuropathies, seromas and upper extremity lymphedema. This can be avoided with a sentinel lymph node (SLN) biopsy. This study aimed to assess the feasibility of localization of the sentinel node with the blue dye alone and compare the nodal tumor positivity in relation to blue dye positivity. Thirty five patients with breast cancers with stages T1-T3, N0, and one patient with T3 N1 M0 disease who had become node negative post chemo therapy were included in the study. 5 patients with breast cancer clinically node negative axilla were excluded from the study after they have found to have axillary nodes after ultrasound examination. Totally 36 patients were evaluated. This study demonstrates that sentinel node localization is possible with methylene blue dye alone with 88.88% localisation rate. Though limited by small sample size this study has shown a low false negative rate of 6.25%. which denotes that SLN biopsy using methylene blue dye alone is a highly reliable and predictable technique to stage the axilla in breast cancer patients. This technique may help to avoid complete axillary lymph node dissection in sentinel node negative patients thereby minimising the morbidity of axillary lymph node dissection.