## Extending ACOSOG Z0011 to Encompass Mastectomy Patients: A Retrospective Review

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Abstract: Introduction: Axillary nodal status in breast cancer patients is a paramount prognosticator, next to primary tumor size and grade. It has been well established that patients with negative sentinel lymph node biopsy can safely avoid axillary lymph node dissection. A positive sentinel lymph node has traditionally required subsequent axillary dissection. According to ACOSOG Z11 trial, patients who underwent axillary dissection with 3 or more positive sentinel nodes or opted for observation in case of negative sentinel lymph node, did not find any difference in Overall Survival (OS) and Disease Free Survival (DFS). The Z11 trial included patients who underwent breast conserving surgery and excluded patients with mastectomies. The purpose of this study is to determine whether Z0011 can be applied to mastectomy patients as well in 1-3 positive sentinel lymph nodes and avoid unnecessary ALND. Methods: A retrospective review was conducted at Shaukat Khanam Memorial Cancer Hospital Pakistan from Jan 2015 to Dec 2017 including patients who were treated for invasive breast cancer and required upfront mastectomy. They were clinically node negative, so sentinel lymph node biopsy was performed. Patients underwent ALND with positive sentinel lymph node. A total of 156 breast cancer patients with mastectomies were reviewed. Results: 95% of the patients were female while 3% were male. Average age was 44 years. There was no difference in race, comorbidities, histology, T stage, N stage, and overall stage, use of adjuvant chemotherapy and radiation therapy. 64 patients underwent ALND for positive lymph node while 92 patients were spared of axillary dissection due to negative sentinel lymph node biopsy. Out of 64 patients, 38 patients (59%) had only 1 lymph node positive which was the sentinel node. 18 patients (28%) had 2 lymph nodes positive including the sentinel node while only 8 patients (13%) had 3 or more positive nodes. Conclusion: Keeping in mind the complications related to ALND, above results clearly show that ALND could have been avoided in 87% of patients in the setting of adjuvant radiation, possibly avoiding the morbidity associated with axillary lymphadenectomy although a prospective randomized trial needs to confirm these results.

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