**Loco-regional therapy**

PATTERNS OF FAILURE IN PATHOLOGIC N1 BREAST CANCER PATIENTS TREATED WITH MASTECTOMY AND RADIOTHERAPY

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**Introduction:**
Pakistan has the highest rate of breast cancer of any South Asian population and the majority of patients present with locally advanced or metastatic disease. We report on patterns of failure and survival in pathologic N1 breast cancer patients treated with mastectomy, adjuvant chemotherapy/hormonal therapy and post-mastectomy radiotherapy (PMRT).

**Materials and methods:**
Between 1995 and 2009, the hospital information system identified 400 women with pathologically confirmed N1 breast cancer. Axillary nodes were clinically palpable in 75% of the patients at presentation. All patients were treated with mastectomy (including level I-II axillary dissection). Distribution of pathologic tumor size was up to 2 cm, 2.1 to 5 cm, and more than 5 cm in 16.5%, 58.5%, and 25% of the patients, respectively. Distribution of dissected lymph nodes was one to five, six to nine, and ten and above in 9%, 6% and 85% of the patients, respectively. Median number of dissected lymph nodes were 14 (range 1–37). 92% of the patients received doxorubicin-based chemotherapy either in neo-adjuvant or adjuvant setting. All patients received PMRT, to chest wall only in 12%, to chest wall and supraclavicular fossa in 81.5%, and to chest wall, supraclavicular fossa and axilla in 6.5% of the patients. All patients with positive ER/PR receptors also received hormonal modulation. Median age was 44 years (range 21–83 years). Patterns of failure and disease-free survival (DFS) were determined.

**Results:**
Median follow-up duration was 4.4 years. Patterns of failure were, isolated local (LF) in 4%, isolated regional (RF) in 0.5%, distant failure (DF) in 32%, and loco-regional along with distant failure (LRF + DF) in 2.5% of patients. Cumulative incidence of loco-regional failure for patients with a pathologic tumor size of up to 2 cm, 2.1 to 5 cm, and more than 5 cm were 2.5%, 3%, and 5.5%, respectively. These incidences for one to five, six to nine, and more than ten dissected lymph nodes were 2%, 0%, and 9.5%, respectively. The 10 years DFS for the whole group was 55%.

**Conclusions:**
The role of PMRT may have some value in terms of loco-regional control in pathologic N1 breast cancer patients. This merits further evaluation in large-scale randomized trials.

**Disclosure:**
All authors have declared no conflicts of interest.