IMMEDIATE CHEST WALL RECONSTRUCTION USING EXTERNAL OBLIQUE MYOCUTANEOUS FLAP FOR LARGE SKIN DEFECT AFTER EXTENSIVE MASTECTOMY IN ADVANCED OR RECURRENT BREAST CANCER PATIENTS: SINGLE CENTER EXPERIENCE

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**Background** - The resection of advanced or recurrent breast carcinoma frequently results in large chest-wall skin defects. In this case, the challenge for breast surgeon is how to cover the extensive skin defects. We report single-stage chest-wall reconstructions using external oblique myocutaneous flap (EOMCF) following resection of advanced or recurrent breast tumors at the Pusan National University Hospital over a 7-year period.

**Methods** - Between January 2007 and October 2015, dermographic and clinicopathologic data of 75 women who had underwent extensive mastectomy with immediate chest wall reconstruction using EOMCF were reviewed retrospectively.

**Results** - Our study included 75 female patients and mean age was 50.5 ± 9.8 years. Mean BMI was 23.2 ± 3.6 kg/m\(^2\) and Mean follow-up period was 36.7 ± 25.1 months (range, 3–102 months). Among total 75 patients including stage IV cancer, 56 patients (74.7%) were inflammatory breast cancer and 19 patients (25.3%) were non-inflammatory breast cancer. Intraoperative frozen section biopsy for surgical margin was negative in all patients. Mean chest wall skin defect measured 228.3 ± 168.1 cm\(^2\) (range, 31.9–1369.0 cm\(^2\)) and corresponded to about 15X15 cm defect. Mean width of the skin defect was 19.3 ± 3.5 cm (range, 9.8 – 30.0 cm) and mean length was 15.2 ± 4.0 cm (range, 7.5 – 29.0 cm). Mean total operative time including mastectomy and chest wall reconstruction was 163.7 ± 62.5 minutes (range, 75.0 – 370.0 minutes). Of the total 75 patients, 14 patients (18.7%) experienced minor postoperative complications. In 59 non-stage IV patients, locoregional relapse occurred in 5 patients (8.5 %). In 16 stage IV patients, 4 patients (25%) had a locoregional recur (chest wall or ipsilateral axillary lymph node).
**Conclusions** - EOMCF can effectively cover the large chest wall defect with few minor complications and reliable local disease control, especially in patients with a poor general condition, recurrent or advanced tumor which is not responsive to primary chemotherapy or radiotherapy.

**Keywords**: advanced breast cancer, recurrent breast cancer, extensive mastectomy, external oblique myocutaneous flap, large chest wall (skin) defect, one-stage (immediate) reconstruction