The clinical outcome of reconstruction with tissue expander for breast cancer patients with mastectomy

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Purpose: We analyzed the outcomes and complications of reconstruction with tissue expanders (TEs) and permanent implants (PIs).

Patients & Methods: From 2000 to 2009, 197 patients with unilateral, primary breast cancer who required mastectomy concurrent with reconstruction using TEs (TE group) and 540 patients with breast cancer who underwent mastectomy without reconstruction (MT group) were examined. Moreover, from 1997 to 2009, a retrospective review was performed of 234 primary breast cancer patients undergoing 239 postmastectomy breast reconstructions with TEs / PIs.

Results: The incidence of local recurrence in the TE and the MT group were 4.1% vs. 4.1% (p=0.9936). In the TE vs. the MT groups, relapse-free-survival and overall survival at 120 months were 80.8% vs. 74.7% (p=0.1288) and 85.9% vs. 81.9% (p=0.02305), respectively. The incidence of infection was significantly higher in the TE than in the MT group, 13.2 % vs. 4.1% (p<0.0001). Removal of TEs / PIs was observed in 15.5% (37/239) of reconstructions. The completion rate was significantly higher in reconstructions without TE infection than with infection (96% vs. 54%, p<0.0001). Patients with BMI ≥25 kg/m2 and seroma aspiration were more likely to develop TE infections, and seroma aspiration was a significant independent risk factor (p<0.0001).

Conclusion: Compared with mastectomy alone, immediate reconstruction with TEs did not impair prognosis, although the incidence of surgical site infection in the TE group was significantly higher than in the MT group. To improve completion rates of breast reconstruction, prevention of TE infection plays a key role.

Biography

Daisuke Ota had completed his PhD from Tokyo Medical University. He is the Deputy Director of breast and endocrine surgery of Mitsui Memorial Hospital.

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