

Breast reconstruction de novo by water-jet assisted autologous fat grafting- -a retrospective study.

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Abstract

BACKGROUND:

Autologous fat grafting has become a frequent, simple, reproducible and low-risk technique for revisional or partial breast reconstruction. The presented European multicenter study describes an optimized treatment and follow-up protocol for the de novo breast reconstruction after total mastectomy by lipotransfer alone.

METHODS:

A retrospective European multicenter trial included 135 procedures on 28 (35 breasts) postmastectomy patients (mean 52.4 years). All women were treated with the water-jet assisted fat grafting method (BEAULI™) combined with additional procedures (NAC reconstruction, contralateral mastoplasty) and evaluated with at least 6 months follow-up (mean 2.6 years). Sonography or mammography, clinical examination, patient questionnaire (10-point Likert scale) and digital photographs were carried out.

RESULTS:

On average the patients received 4 to 6 procedures each with a single volume of 159 ml (±61 ml) over 21 months (range 9 months to 2.5 years). In total 1,020 ml (±515 ml) fat were grafted till a complete breast reconstruction was achieved. Irradiated patients needed a significantly higher volume than non-irradiated ($p < 0.041$). Main treatment complications were liponecrosis (2.59%), infection (0.74%) and granuloma (0.74%). Patient satisfaction was overall high to very high (96%) and confirmed the good aesthetic results (68%) and the natural softness, contour and shape of the reconstructed breast.

CONCLUSIONS:

A complete breast reconstruction with large volume fat grafting is alternatively possible to standard techniques in selected cases. It takes at least 4 to 6 lipotransfers in the course of 2 years. Patients with prior radiotherapy may require even up to 8 sessions over nearly 3 years of treatment.

KEYWORDS:

autologous fat grafting; breast reconstruction; lipotransfer; mastectomy

source:

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