

Jet-assisted fat transfer to the female breast: preliminary experiences

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Abstract

Background

Nowadays, autologous fat grafting is used as a versatile tool for distinct touch-ups after performed breast reconstruction or aesthetic augmentation. Different approaches of fat harvest, filtering, and reinjection have been described in last three decades. After the first report in 2010, the Berlin Autologous Lipotransfer (BEAULI) method became one of the latest popular techniques in the field of large volume fat grafting. Preliminary experiences with the rising jet-assisted fat transfer in a large case series of two specialized European centers are presented.

Methods

Retrospective analysis enrolled over 167 female nonsmokers with reconstructive or aesthetic indications treated with at least one procedure according to the standardized protocol of the BEAULI™ technique from February 2010 to June 2012. Patients with weight changes >5 kg and endocrine or cardiovascular comorbidities have been excluded. [Demographics](#) and items of the treatment (i.e., grafted volumes per procedure) were enlisted for evaluation. The first outcome has been estimated based on complications rate, pain report (VAS score), and digital photographs after at least 6 months of follow-up.

Results

The included 132 patients (240 breasts) had a mean age of 39.7 years and underwent 487 autologous jet-assisted fat transfer procedures with minor complications (5.35 %) like tiny oil cysts formations or hematoma of the donor site. Low postoperative pain (88.6 % with VAS 1 to 4) has been reported during the first week, and final aesthetic evaluation showed good to excellent results. We observed a higher frequency of procedures, especially in irradiated patients (>3.62) compared to the rest of reconstructive cases (>2.78). The presented data helped us to differentiate the treatment according to the respective indications (reconstructive vs. aesthetic) and to optimize our intern protocol.

Conclusions

Water-jet-assisted liposuction with consecutive immediate mammary fat injection is a procedure with a short hospitalization and low complication rate. Based on the preliminary results in the use of the BEAULI™ technique for breast reconstruction and aesthetic augmentation, the authors presume that it can be safely applied for these specific patient groups. Although further studies including long-term follow-up are certainly required to

constantly control and compare the presented method to other autologous fat grafting techniques.

Level of Evidence: Level III, therapeutic study.

Meeting presentations content of the original article has been presented on the 17th IPRAS World Congress in February 2013 (Santiago- 288 Chile), 45th DGPRÄC—German Society for Plastic and Reconstructive Surgery meeting in September 2013 (Münster, Germany), Beijing International Forum of Adipose Derived Stem Cell and fat Grafting in November 2013 (Beijing—China), and Fifth International Conference Regenerative Surgery in Rome December 2013.

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