

## Chronological Order of Lipofilling during Implant Exchange

Chiara Zanin, MD\*; Sarah Calabrese, MD\*; Emanuele Rampino Cordaro, MD\*; Andrea Marchesi, MD†; Pier Camillo Parodi, MD\*

**A**lthough fat graft could be the only technique used for breast reconstruction, often lipofilling is performed to add a more genuine appearance to the reconstructed breast and especially to correct aesthetic defects.<sup>1</sup>

In fact, in many cases, patients undergo more than a single surgical operation to reach a natural looking breast. This is often related to the quality of the skin of the post-mastectomy flap and to the aesthetic complications that follow breast reconstruction.

Aesthetic defects are frequently identified as palpability of the implant, wrinkling of the skin, and asymmetry of the breast. In these cases, lipofilling is a useful tool, as result of its action on the skin itself. In other cases, a new surgical time with implant exchange and pocket modifications is needed, especially when there are remarkable differences between the breasts or the reconstructed breast has unpleasant features.

Therefore, arranging lipofilling and implant exchange reveals some issues about the chronological order of the 2 actions performed.<sup>2-4</sup>

After the pocket modifications have been performed, fat grafting could have 2 different moments: First, on the breast sizer, before implanting the prosthesis, so with an open pocket (Fig. 1); second, after the breast prosthesis has been positioned and the pocket has been sutured (Fig. 2). Similarly, in both cases, fat graft could be operated on both from the surgical scar and from proper holes made with a needle.

Clearly, the choice of the timing of fat grafting involves different possible scenarios.

The breast sizer gives the idea of the future look of the reconstructed breast and facilitates operating the graft where it is needed. Furthermore, the possibility of checking where the graft is performed avoids the risk of offending the implant.

On the other hand, there is the chance that some fat could contaminate the pocket, even after washing of the pocket itself.

In contrast, operating fat graft on the definitive breast prosthesis reduces the risk of contamination of the pocket,



**Fig. 1.** Fat grafting is performed before implanting the prosthesis, on the breast sizer.



**Fig. 2.** Fat grafting is performed after the breast prosthesis has been positioned and the pocket has been sutured.

et, but the blind graft raises doubts about puncturing the implant or piercing the pocket.

These are several factors that seem to be in conflict when performing fat graft and implant exchange.

In breast reconstruction, fat graft transfer has become an important step in addition to the implant of the prosthesis itself, because of the attention given in researching good aesthetic quality of postmastectomy breast reconstruction.

Based on the recorded information, we can say overall that more studies are needed to discover and understand late complications and aesthetic outcomes of the different timing of lipofilling.

In the last 5 years, we have been performing several breast reconstructions using both techniques. On one hand, we have not observed significant differences among the recorded complications. On the other hand, we prefer

From the \*Department of Plastic and Reconstructive Surgery, University of Udine, Udine, Italy; and †Dipartimento di Chirurgia Plastica Ricostruttiva, I.R.C.C.S. Policlinico San Donato, Università degli Studi di Milano, San Donato Milanese, Milan, Italy.

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performing fat graft on the definitive breast prosthesis, to keep it as fixed as possible, without the risk of moving it during implant exchange. We are still recording complications and statistical analysis for future reference.

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Chiara Zanin, MD**

Department of Plastic Reconstructive Surgery  
University Hospital "Santa Maria della Misericordia"  
Piazzale Santa Maria della Misericordia n 15  
33100 Udine  
Italy  
E-mail zanin.chiara@gmail.com

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