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Letters

Breast Reconstruction Using a Three-Dimensional Absorbable Mesh Scaffold and Autologous Fat Grafting: A Composite Strategy Based on Tissue-Engineering Principles

Several international teams are focusing on the growth of adipose tissue for breast reconstruction. Their surgical strategies are distinguished by the type of fat tissue used: transfer of nonvascularized adipose tissue (lipofilling) or local fat flap. In their very interesting article, Rehnke et al. present the first clinical results of their tissue-engineered breast reconstruction procedure using lipofilling.[1] Our Mat(t)isse research project, presented below, proposes a surgical procedure for tissue-engineered breast reconstruction using a local fat flap. The Australian team of Morrison et al. obtained the proof of concept of a tissue-engineering chamber for breast reconstruction.[2] The aim was to stimulate the growth of fat tissue directly in vivo, within an implantable device serving as a bioincubator. A cross-disciplinary approach led us to the creation of an absorbable implantable device, using three-dimensional printing, that serves as an incubator for the growth of a local fat flap according to the concept of the tissue-engineering chamber.[3] Figure 1 shows the key steps of the concept:

1. During surgery, both dome and base are assembled to create the tissue-engineering chamber. Within this chamber is embedded a low-volume flap of vascularized fat tissue, whose volume is approximately 15 percent of the chamber volume. This tissue-engineering chamber allows the fat tissue to grow and take up all of the available dead space. An autologous volume is then reconstructed.
2. Synchronously, the biomaterial constituting the chamber is absorbed by the fluid environment in contact with it.
3. Finally, only the autologous fat tissue remains at the volume of the initial chamber.

Preclinical protocols in rats and pigs have found the proof of concept of Morrison et al. by documenting tissue growth within the implantable chamber in an average time of 90 days during magnetic resonance imaging follow-up.[3]

Several paramammary pedicles allow the raising of local fat flaps that can be used in our Mat(t)isse project, including flaps based on a perforator of the internal or external thoracic pedicle, the deep upper epigastric pedicle, or the lateral intercostal pedicle, for example.[4,5]

The accompanying video presents the different steps of a Mat(t)isse surgical procedure on an anatomical subject. [**See Video (online)**, which demonstrates the 12 steps for a Mat(t)isse surgical procedure.]:

Steps 1, 2, 3, and 4 concern the preliminary subcutaneous mastectomy and then the preoperative markings for the flap raising.
Steps 5 and 6 show the raising of the local flap.
Steps 7 through 12 show the use of the device, its insertion, and then the closure.

The use of a local fat flap seems to us an interesting alternative to be considered. Indeed, the major disadvantage of the use of lipofilling compared to the local fat flap is the need to perform several lipofilling procedures. Our Mat(t)isse procedure would allow an autologous

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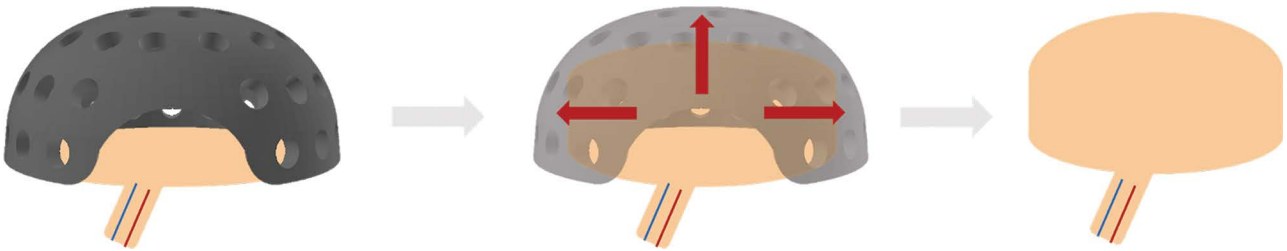

Fig. 1. Key steps of the Mat(t)isse concept.

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breast reconstruction, without any sequelae of the donor site and without foreign bodies, in a single procedure.

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César Depoortère, M.D.
Pierre Faglin, M.D.
Salengro Hospital
Department of Plastic Surgery
Lille University Hospital
INSERM
CHU Lille

Lucie Dekerle, M.B.B.S.
INSERM
CHU Lille

Philippe Marchetti, M.D., Ph.D.
Center de Biologie Pathologie

Véronique Duquennoy-Martinot, M.D., Ph.D.
Salengro Hospital
Department of Plastic Surgery
Lille University Hospital

Pierre Guerreschi, M.D., Ph.D.
Salengro Hospital
Department of Plastic Surgery
Lille University Hospital
INSERM
CHU Lille
Lille, France

Correspondence to Dr. Depoortère
Salengro Hospital
Department of Plastic Surgery
Lille University Hospital
59000 Lille, France
cesar.depoortere@chru-lille.fr

DISCLOSURE

Drs. Marchetti and Guerreschi are co-inventors of a patent application that covers the design of the tissue-engineering chamber and are consultants for Lattice Medical. The remaining authors have no financial or commercial conflicts of interest in relation to this work.

REFERENCES

1. Rehnke RD, Schusterman MA 2nd, Clarke JM, et al. Breast reconstruction using a three-dimensional absorbable mesh scaffold and autologous fat grafting: A composite strategy based on tissue-engineering principles. *Plast Reconstr Surg.* 2020;146:409e–413e.
2. Morrison WA, Marre D, Grinsell D, Batty A, Trost N, O'Connor AJ. Creation of a large adipose tissue construct in humans using a tissue-engineering chamber: A step forward in the clinical application of soft tissue engineering. *EBioMedicine* 2016;6:238–245.
3. Faglin P, Gradwohl M, Depoortere C, et al. Rationale for the design of 3D-printable bioresorbable tissue-engineering chambers to promote the growth of adipose tissue. *Sci Rep.* 2020;10:11779.
4. Hamdi M, Stillaert FB. Pedicled perforator flaps in the trunk. *Clin Plast Surg.* 2010;37:655–665, vii.
5. Boucher F, Mojallal A. [Atlas of skin perforator arteries of trunk and limbs Guide in the realization of perforator flaps]. *Ann Chir Plast Esthet.* 2013;58:644–649.

Ultra Diced Cartilage Graft in Rhinoplasty: A Fine Tool

It is with delight that we read the original article titled "Ultra Diced Cartilage Graft in Rhinoplasty: A Fine Tool."[1] In this study, Dr. Taş proposed the ultra-diced cartilage graft to smooth the dorsum or augment the radix/dorsum in rhinoplasty and compared it with the free diced cartilage grafting technique (smaller than 0.2 mm). A rhinoplasty outcome evaluation questionnaire, palpation test, and evaluation of the photographs by surgeons showed that ultra-diced cartilage seemed superior to free diced cartilage grafting with regard to graft visibility and resorption.

Diced cartilage graft has been applied widely for rhinoplasty, with rare resorption and stable outcomes over time.[2–4] The present study adopted diced cartilage pieces smaller than 0.2 mm in diameter, while 0.5- to 1-mm diced cartilage was more widely adopted in the literature.[2–5] Since there were no studies reporting the potential effect on viability associated with the diameter of diced cartilage, using diced cartilage smaller than 0.2 mm will lack typicality and may lead to a potential bias to some extent. We propose comparing the ultra-diced cartilage with 0.5- to 1-mm diced cartilage instead.

In this study, the immediate postoperative photographs on the table and postoperative 1-year photographs were evaluated by surgeons for graft visibility and resorption on a scale of 0 to 2 (0, graft resorption; 1, graft visibility; and 2, smooth dorsum). The

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