

In Situ Fenestration: A Simple Technique for Fenestration of Acellular Dermal Matrix During Breast Reconstruction

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Abstract. *Background and aim:* Acellular Dermal Matrices (ADMs) were first described for use in breast surgery in 2001, and in 2005 it was first described to be used in breast reconstruction. However, ADMs are also associated with increased postoperative complications. Fenestration of the ADM may reduce the incidence of postoperative complications. *Methods:* We fenestrate the ADM in-situ, after attaching it to the lower pole of the planned pocket using absorbable sutures. *Conclusions:* using this technique enables to achieve a fan-shaped ADM mesh within less than a minute; Demonstrating a fast, easy and most importantly sterile method to fenestrate the ADM. (www.actabiomedica.it)

Key words: breast reconstruction, ADM, acellular dermal matrix, mastectomy

To the Editor,

Acellular Dermal Matrices (ADMs) were first described for use in breast surgery in 2001, mainly for aesthetic revisionary surgery (1). In 2005, Breuing and Warren were the first to describe the use of ADMs in breast reconstruction, whereby the ADM performed as an expandable sling supporting the inferior and lateral aspects of the implant (2). Since this initial report, ADMs have become an increasingly popular component of implant-based breast procedures (1). Their main advantages are described as potential improvement of cosmesis in breast reconstruction and following aesthetic revisionary surgery, amelioration of late or irradiation-induced contracture (2), and cost-savings imparted by the direct-to-implant breast reconstruction model (1, 3). However, ADMs are also associated with increased postoperative complications, most frequently seromas (3, 4). Fenestration of the ADM may

reduce the incidence of postoperative complications (4). Notwithstanding the availability of commercially prepared fenestrated ADM, non-fenestrated ADMs are still widely used and require intra-operative meshing; A procedure which is usually done before introducing the ADM to the reconstructed breast (4, 5).

In Ha'Emek Medical Center in Afula, Israel, we fenestrate the ADM in-situ, after attaching it to the lower pole of the planned pocket using absorbable sutures. The free edges are held with mosquito forceps so that the matrix is well stretched, while the ADM is linearly pierced with a #11 blade scalpel, using a malleable retractor to protect the underlying tissue. As shown in the attached figures, using this technique enables to achieve a fan-shaped ADM mesh within less than a minute; Demonstrating a fast and easy method to fenestrate the ADM. We believe that it shortens the time out of the patient, thus making it a more sterile approach to ADM useage.

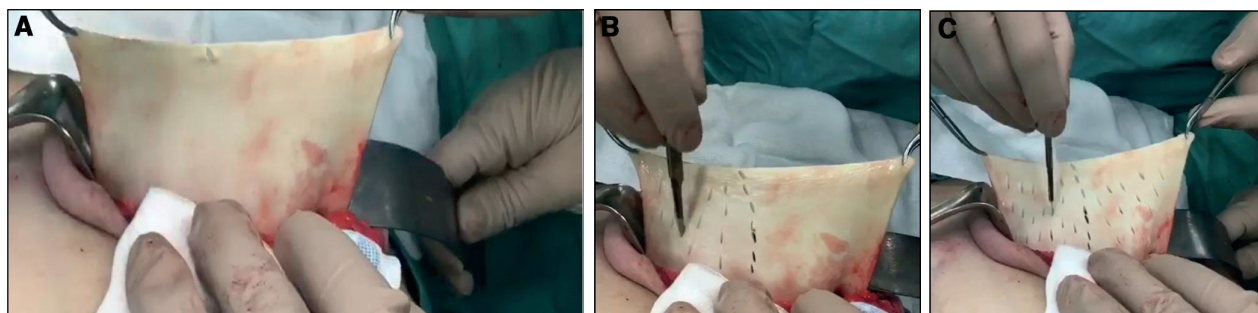


Figure 1. ADM in situ fenestration results. A – ADM and malleable retractor B & C – ADM Fenestration

Conflict of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

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