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대흉근 전방 유방 재건술에서
포켓형 무세포 동종진피를 이용한
유방상부 표면 주름의 예방

(Prevention of upper pole rippling in
prepectoral breast reconstruction using
pocket-type ADM)



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Purpose: Although prepectoral direct-to-implant (DTI) reconstruction offers several advantages, it carries a risk of implant rippling due to soft tissue deficiency, particularly in the upper pole. This study evaluated whether the use of a pocket-type acellular dermal matrix (ADM) could effectively reduce upper pole rippling by providing additional implant coverage and a smoother implant-flap transition.

Methods: Prepectoral DTI reconstruction was performed using a pocket-type ADM. As shown in **Figure 1**, the pocket-type ADM was first prepared on the sterile field, then opened to allow implant placement, and finally used to fully wrap the implant. The lower pole of the ADM was trimmed to fit the inframammary fold, while the superior portion was preserved to reinforce the upper pole as a mechanical barrier over the implant edge. The ADM construct was then secured with 3-0 PDS and prepared for final insertion, as shown in **Figure 2**. For comparison, a case using a square-type ADM wrapped in a round configuration was also reviewed. Postoperative clinical evaluation focused on visible or palpable rippling, especially in the upper pole.

Results: In the case reconstructed with the square-type ADM wrapped in a round configuration, visible rippling was observed postoperatively in the reconstructed breast (**Figure 3**). In contrast, in the case reconstructed using the pocket-type ADM, no visible upper pole rippling was noted (**Figure 4**). The preserved superior portion of the pocket-type ADM appeared to effectively mask the transition between the implant and the overlying skin flap, resulting in a smoother upper pole contour.

Conclusion: The use of pocket-type ADM in prepectoral breast reconstruction may serve as an effective mechanical buffer that compensates for soft tissue deficiency and helps prevent upper pole rippling. Preservation of the superior ADM portion may be particularly useful in reinforcing the upper pole and improving contour smoothness.



Fig.1 Preparation of the pocket-type ADM: the ADM is placed on the sterile field, opened to allow implant placement, and used to fully wrap the implant.



Fig.2 Final ADM construct: the lower pole was trimmed to fit the inframammary fold, while the superior portion was preserved and secured with 3-0 PDS for final insertion.



Fig.3 Postoperative result after implantation of a square-type ADM-wrapped implant in a round configuration, showing visible rippling



Fig.4 Postoperative result after implantation with a pocket-type ADM, showing no visible rippling.