

PP-08

유방전절제술 및 즉시 유방재건 후 발생한 개존 유관과 연관된 지연성 유방 연조직염

(Delayed Breast Cellulitis Associated with Patent Lactiferous Ducts After Total Mastectomy and Immediate Breast Reconstruction)



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Purpose:

Delayed breast cellulitis occurring more than one year after total mastectomy and immediate breast reconstruction poses a clinical challenge. Although resected lactiferous ducts are generally expected to close spontaneously during the healing process, persistent ducts may serve as potential infection foci. We report two cases of delayed breast cellulitis following breast reconstruction, highlighting the role of patent lactiferous ducts as a possible pathway for infection.

Methods:

A 50-year-old woman who had undergone nipple-sparing mastectomy with bilateral free deep inferior epigastric perforator flap reconstruction, presented with bilateral breast cellulitis 2 years after surgery following hot spring bathing (Fig. 1). The patient was treated with intravenous antibiotics for one week with clinical resolution. The second patient, 48-year-old woman who underwent robot-assisted nipple-sparing mastectomy with direct-to-implant reconstruction, developed recurrent unilateral breast cellulitis one year postoperatively (Fig. 2A, 2B). Despite repeated intravenous antibiotic treatment, symptoms recurred multiple times. Surgical exploration was therefore performed, during which probing through a nipple opening revealed patent lactiferous duct communicating with the subareolar space and extending toward the acellular dermal matrix. The ductal tract was confirmed using blue dye staining and completely excised (Fig. 3). However, recurrence persisted with contracture (Fig. 2C), and implant explantation was ultimately performed.

Results:

Both patients recovered without recurrence following antibiotic and surgical treatment, respectively (Fig. 4).

Conclusion:

Our cases suggest that incompletely closed lactiferous ducts may function as a conduit for external bacterial entry after reconstruction, potentially leading to delayed breast cellulitis, and highlight the importance of recognizing ductal communication as underlying source of late infection.



Fig. 1. Clinical course of patient 1. (A) One-year postoperative follow-up after bilateral deep inferior epigastric perforator flap breast reconstruction. (B) Development of erythema on the right breast at 2 years postoperatively. (C) Exacerbation of erythema during IV antibiotics treatment indicating the range of involvement.

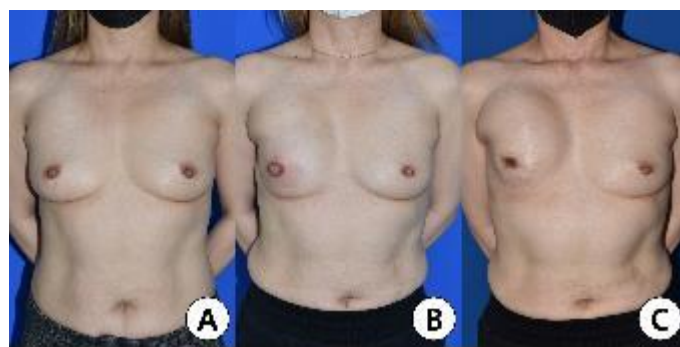


Fig. 2. Clinical course of patient 2. (A) Preoperative view. (B) Development of cellulitis around the right nipple-areolar complex at 1 year postoperatively. (C) After salvation trial, inflammation and capsular contracture persisted.

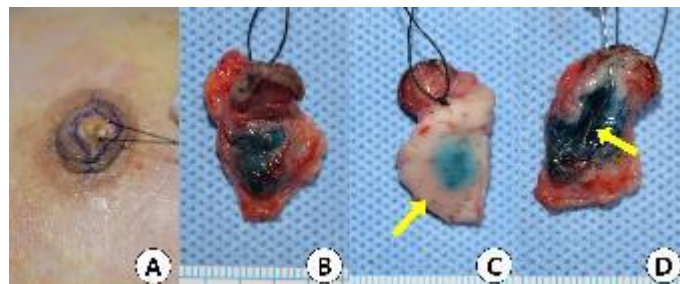


Fig. 3. Intraoperative findings of patient 2. (A) Discharge observed from a nipple opening. (B) Anterior view of the en bloc-resected fistulous tract. (C) Posterior view of the specimen showing involvement of the adjacent acellular dermal matrix (arrow). (D) Longitudinal section demonstrating a patent dilated lactiferous duct (arrow).

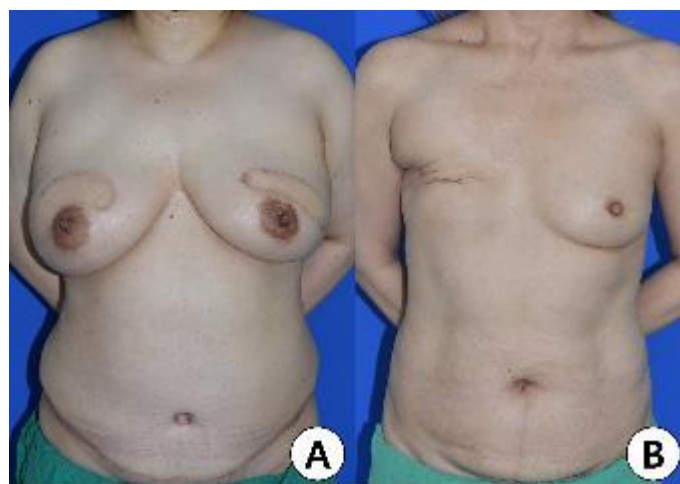


Fig. 4. Clinical photographs at 1-month follow-up after treatment completion. (A) Patient 1. (B) Patient 2.