CASE REPORT

Inferior dermal flap in breast reconstruction with tissue expanders

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SUMMARY

A surgical case, in which inferior dermal flap was used to cover a tissue expander for breast reconstruction, is reported. In spite of the skin necrosis on the seventh postoperative day, flap coverage successfully protected the tissue expander from exposition.

BACKGROUND

Tissue implants and expanders are widely used in breast reconstruction. Implant coverage in these cases is usually provided by pectoralis muscle. But pectoral muscle is usually insufficient in covering the inferior part of the expander. For this purpose, acellular dermal matrix,¹ serratus anterior muscle,² rectus fascia flaps² and inferior dermal flaps³ can be used. In this paper, we present a case in which inferior dermal flap has protected the expander despite wide skin necrosis.

CASE PRESENTATION

A 56-year-old patient was presented to our clinic with a T2N0M0 tumour on the upper right quadrant of the left breast.

TREATMENT

Nipple and skin sparing mastectomy was planned. The patient had bilateral macromasty. Markings were made similar to a breast reduction with wise pattern and superior pedicle. Inferior dermal pedicle was also marked for deepidermisation along with the superior pedicle. After the skin incisions, subcutaneous mastectomy was performed. A tissue expander with 550 mL capacity was placed under the pectoralis muscle and filled with 200 mL of saline solution. Deepidermised inferior dermal flap was excised from its medial and lateral sides and sutured along the inferior margin of the pectoralis muscle (figure 1). Nipple and areola were sutured on to its new location and final skin closure was performed.

Figure 1 (A) Elevation and (B) insertion of inferior dermal flap.

Figure 2 (A) Postoperative seventh day with skin necrosis. (B) Postoperative third week after chemotherapy.

OUTCOME AND FOLLOW-UP

In the postoperative seventh day, ecchymosis was present in the lower pole of the breast which resulted in 7×7 cm skin necrosis. Since there were no signs of infections, debridement was delayed not to interrupt the chemotherapy. During the chemotherapy, the necrosis was mostly healed and the tissue expander was not exposed. At the end of the chemotherapy, the necrosis was completely healed and the filling of the expander was completed without any further complications (figure 2).

DISCUSSION

Implant-based breast reconstruction is the choice for many women who want to avoid autologous breast reconstruction. Inferior dermal flap has been described as a method of providing thick coverage for the tissue expander in these patients.^{3–5} This technique can also be used in conjunction with partial mastectomy.⁶ In a previous study, combination of inferior dermal flap with free nipple grafting has also been reported.⁷

This case demonstrates a situation where protective vascular tissue coverage protects the tissue expander in the case of a wide skin necrosis. The main takeaway point from this case is that early debridement in the absence of infection might not always be the best option for the patient. We

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Learning points

- ▶ Inferior dermal flap is a useful technique to provide coverage for the tissue expander following mastectomy.
- ▶ In cases of skin necrosis following mastectomy, early debridement might not always be the best option.

believe that 'wait and see' might be a better option in these cases. We believe that breast reconstruction with inferior dermal flap and tissue expanders are ideal options for women with breast ptosis.

Contributors SKY has performed the surgery. MS contributed to the writing and planning of the script. FI and SA contributed in the surgical planning of the case.

Competing interests None declared.

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