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확장 광배근 근피판을 이용한 거대 고립성 형질세포종 절제 후 전흉벽결손의 재건

Extended Latissimus Dorsi Myocutaneous Flap for Reconstruction of a Giant Sternal Plasmacytoma Defect

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Purpose: Solitary plasmacytoma rarely presents as a massive anterior chest wall tumor requiring complex skeletal and soft tissue reconstruction. We report successful reconstruction of a giant anterior chest wall plasmacytoma defect using an extended latissimus dorsi musculocutaneous (LDMC) flap.

Methods: A 71-year-old man presented with progressive chest discomfort caused by a rapidly enlarging anterior chest wall mass. Computed tomography (CT) revealed a 13.4 × 7.0 cm enhancing tumor involving the sternum, adjacent ribs, and anterior mediastinum. Following radical tumor resection, pericardial mesh placement, and sternal bar fixation, an 8 × 16 cm chest wall defect remained. A right extended LDMC flap with a distally positioned skin paddle was elevated while preserving the thoracodorsal pedicle. The skin paddle was designed to allow primary closure of the donor site, while sufficient muscle was harvested to ensure reliable coverage of the sternal bar. A portion of the serratus anterior muscle was incorporated to augment muscular coverage over the sternal bar. The flap was tunneled through the axilla and securely fixed to the bilateral pectoralis major and rectus abdominis muscles to provide stable muscular coverage and prosthetic material protection. The donor site was closed primarily in a layer-by-layer fashion.

Results: At 6-month follow-up, the wound remained stable, and the patient was undergoing adjuvant chemotherapy without complications.

Conclusion: Extended LDMC flap reconstruction provides reliable vascularized coverage and sufficient bulk for large anterior chest wall defects after oncologic resection, ensuring durable protection of prosthetic materials and structural stability.

Fig. 1. Preoperative view showing a large anterior chest wall mass.

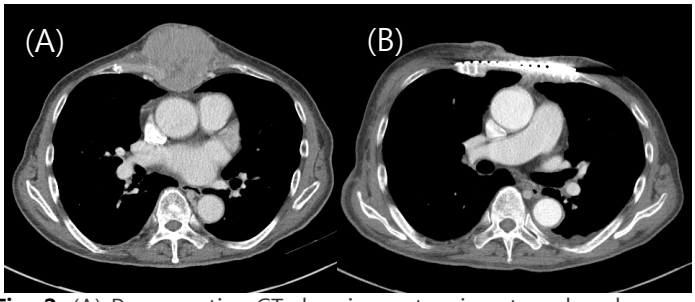

Fig. 2. (A) Preoperative CT showing extensive sternal and mediastinal involvement. (B) Postoperative follow-up CT with a sternal metallic plate covered by a LDMC flap.

Fig. 3. Intraoperative view of flap inset and muscle fixation to adjacent chest wall musculature.

Fig. 4. Postoperative 6-month follow-up showing stable reconstruction.