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고위험군 고령 환자의 광범위 수배부 결손에 대한 서혜부 피판 및 부분층 피부 이식을 이용한 단계적 재건술: 증례 보고

(A Staged Approach Using a Combined Groin Flap and Split-Thickness Skin Graft for a Massive Dorsal Hand Defect in a High-Risk Elderly Patient : A Case Report)

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Purpose: Extravasation is a serious clinical complication that can lead to irreversible skin defects. In areas with minimal soft tissue, such as the hand dorsum, extensive necrosis frequently results in tendon exposure, necessitating robust coverage. While skin grafting is a conventional option, it often fails in patients with impaired peripheral circulation. This report presents the successful reconstruction of a massive dorsal hand defect in an 82-year-old patient with multiple cardiovascular comorbidities using a staged groin flap combined with a split-thickness skin graft (STSG).

Methods: To ensure adequate blood supply for a 13X 8cm doxorubicin-induced defect in a high-risk patient with a history of DVT and PTE, a three-stage hybrid reconstruction was performed(Fig. 1) . In Stage 1, a groin flap was transferred to the central defect, while peripheral margins were left as raw surfaces with wet dressings to prevent excessive tension(Fig. 2). In Stage 2, an STSG was applied to these peripheral margins once the wound bed stabilized(Fig. 3). Finally, in Stage 3, pedicle division and definitive wound remodeling were completed(Fig. 4). This staged approach ensured total coverage while minimizing tension-related ischemia.

Results: A five-month follow-up revealed complete engraftment without any complications. This strategy effectively reconstructed a defect larger than what a standard groin flap could safely cover, despite the patient's significant surgical risks.

Conclusion: For elderly patients with extensive hand defects and compromised circulation, combining a groin flap with an STSG provides a reliable reconstructive solution. This method enhances flap survival by effectively relieving tension through supplemental grafting.

Fig. 1. Preoperative view of a 13X 8cm extensive soft tissue defect on the dorsal hand and wrist, resulting from doxorubicin-induced extravasation injury.

Fig. 2. Insetting of a pedicled groin flap to the central portion of the defect. Note the peripheral margins left as raw surfaces with wet dressings to minimize tension and preserve flap perfusion.

Fig. 3. Application of a Split-Thickness Skin Graft (STSG) to the stabilized peripheral wound beds surrounding the pedicled groin flap

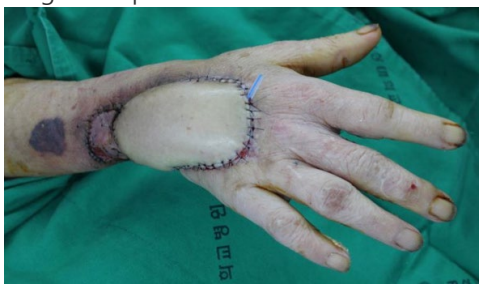

Fig. 4. Definitive view following pedicle division and final wound remodeling, showing successful coverage of the initial defect.