

CASE REPORT**87. Bilateral Fasciocutaneous V-Y Advancement Flaps for Reconstruction of a Stage IV Sacral Pressure Injury in a Burn Patient: A Case Report and Literature Review**

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Background: Pressure injuries (PIs) in the sacral region are a major reconstructive challenge, particularly in critically ill patients or those with a history of extensive burns. Healing capacity is often impaired, and the availability of healthy tissue is limited. Surgical coverage using fasciocutaneous flaps, such as the V-Y advancement design, provides durable reconstruction and effective redistribution of tension. This case illustrates the effectiveness of bilateral V-Y fasciocutaneous flaps in managing a large sacral PI in a burn patient.

The Case A 47-year-old male with a history of extensive burns developed a stage IV sacral pressure injury during a prolonged stay in the intensive care unit. Clinical evaluation confirmed deep tissue involvement. After nutritional optimization, infection control, and wound bed preparation, surgical coverage was planned. Reconstruction was achieved with bilateral V-Y fasciocutaneous advancement flaps, which allowed tension-free closure and adequate vascularized coverage. The postoperative course was uneventful. At twelve-month follow-up, the wound remained fully closed, with no recurrence, dehiscence, or functional compromise. Recent evidence suggests fasciocutaneous flaps may provide superior resistance to pressure compared with muscle flaps, while minimizing donor-site morbidity. Bilateral V-Y advancement flaps allow tension-free closure and remain reliable even in patients with challenging comorbidities, as illustrated in this case.

Conclusion: Bilateral V-Y fasciocutaneous flaps represent a safe, reliable, and effective strategy for reconstructing extensive sacral pressure injuries in patients with complex backgrounds such as burns. Integration of surgical treatment into a multidisciplinary and preventive care plan is critical to optimize outcomes and reduce recurrence risk.

Figure 1. Intraoperative Management of a Sacral Pressure Injury with V-Y Advancement Flaps



Legend: (A) Intraoperative view of a stage IV sacral pressure injury following serial debridement. The defect demonstrates full-thickness tissue loss with exposed bone and extension into the gluteal region. Margins of viable granulation tissue are visible, and preoperative markings delineate the design of bilateral V-Y fasciocutaneous advancement flaps for subsequent reconstruction. (B) Immediate postoperative result after bilateral fasciocutaneous V-Y advancement flaps for coverage of a stage IV sacral pressure injury. The flaps are closed in the midline without tension, with preservation of contour and placement of bilateral suction drains to prevent seroma or hematoma formation.