

Autologous Dermis Reinforcement in Severe Rectus Diastasis with Cutaneous Excess: A Case Report

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Introduction

Reconstruction of large rectus diastasis (RD), often associated with umbilical hernias, is commonly performed using synthetic mesh. However, **autologous deepithelialized dermis** mesh presents a promising alternative, particularly in young patients or cases where foreign body implantation is contraindicated.

Case Presentation

A 36-year-old **multiparous** woman presented with **severe RD**, measuring 15 cm at rest and expanding to 25 cm during Valsalva maneuver, accompanied by significant abdominal dermatochalasis **following three pregnancies and postpartum weight fluctuations**. She experienced core weakness, lower back pain, and body image dissatisfaction.

A standard anterior abdominoplasty approach was performed, allowing for the **harvest of a 30 × 15 cm abdominal dermal flap**, then deepithelialized, resected, and defatted. **Methylene blue dye was used intraoperatively** to ensure complete deepithelialization and guide final graft shaping. **The autologous dermal graft was then positioned in the retro-rectus (sublay) space following the Rives-Stoppa technique**. Umbilical reconstruction was successfully achieved.

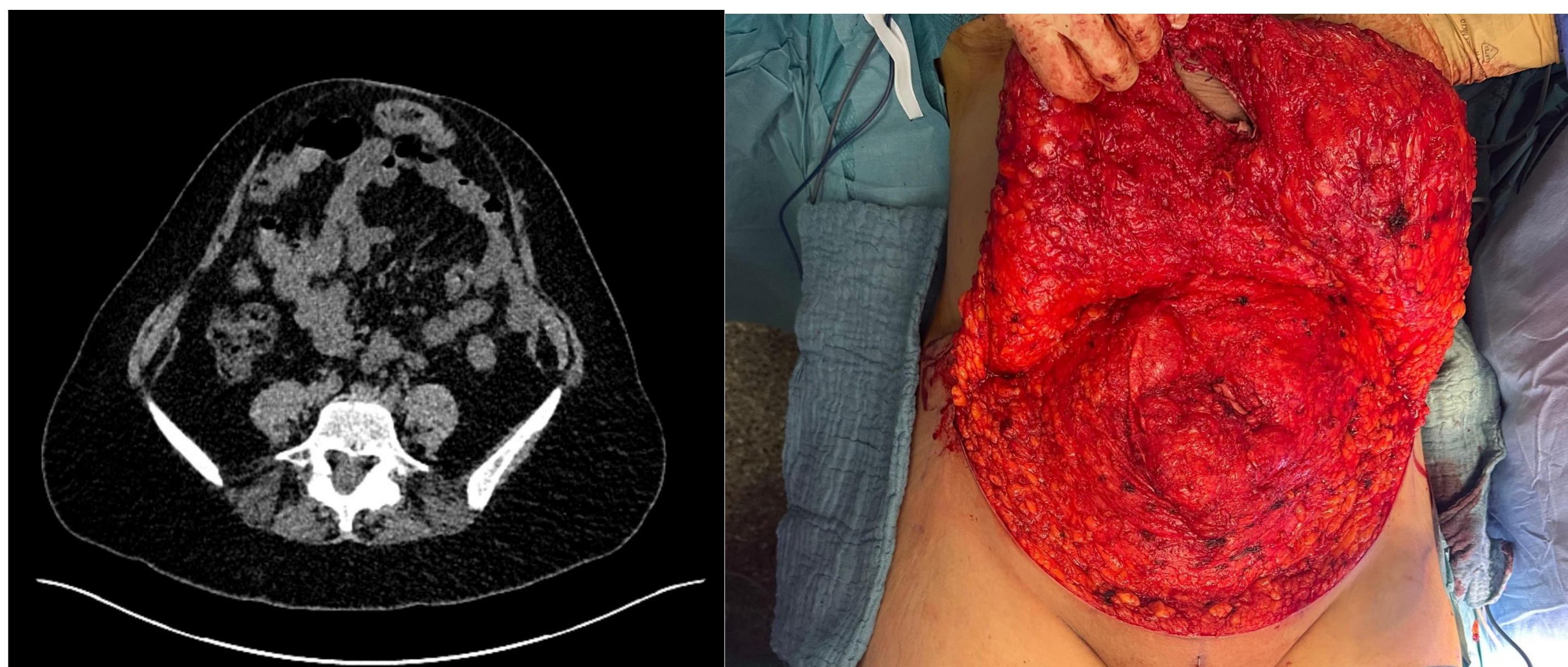


Figure 1. Preoperative abdominal CT-scan (left) and intra-operative view (right), showing the severe RD and associated umbilical hernia

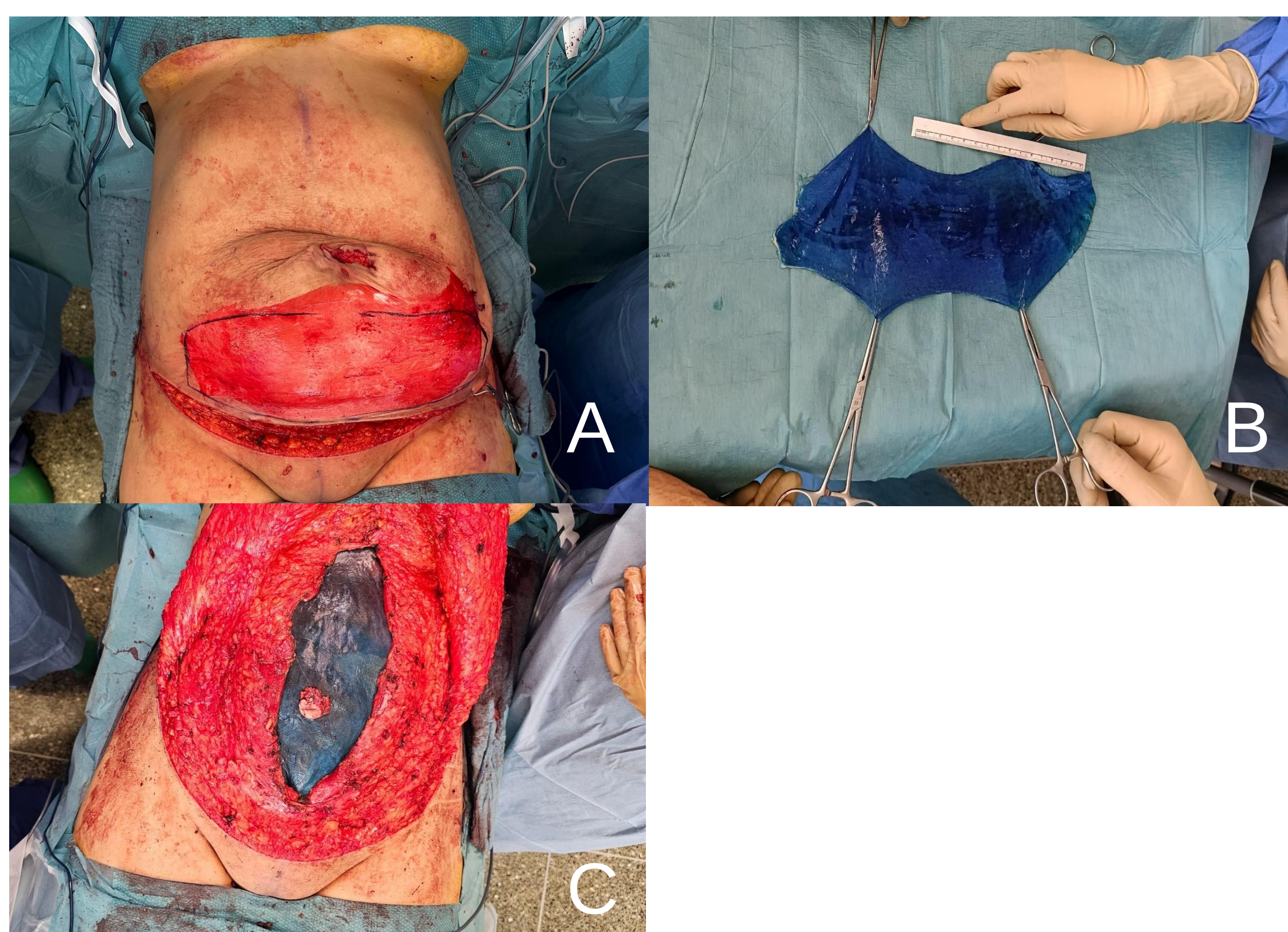


Figure 2. Intra-operative view: design of the abdominal dermal autologous mesh (A), abdominal dermal flap after methylene blue dye application (B), autologous dermal flap after inset (C)

Discussion

This case highlights the utility of autologous dermis as a biologic reinforcement for abdominal wall reconstruction. It represents an **attractive option in infection-prone settings** or for **young patients**. The economic advantages are also noteworthy. When combined with abdominoplasty, sufficient dermal tissue can be harvested to cover extensive defects.

Although clinical data are currently limited to case reports and small series, early outcomes suggest this method is both safe and effective. In our patient, postoperative recovery was uneventful, with excellent functional improvement and a highly satisfactory cosmetic result.

The patient presented an umbilical necrosis, that required debridement and omphaloplasty with local flaps under local anesthesia on POD 7. There were no concerns about prosthetic implant infection, as no prosthetic material was involved.



Figure 3. Immediate postoperative view (A), postoperative result at 3-month follow-up, after umbilicus reconstruction (B)

Conclusion

Autologous dermis reinforcement during abdominoplasty is an effective option for the repair of severe rectus diastasis. It offers an economically attractive biologic alternative to mesh, with favorable outcomes in selected patients.