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Loss of Domain During Complex Abdominal Wall Reconstruction: Results of the Transversus Abdominis Release Technique

Objective: To evaluate the effectiveness of the Transversus Abdominis Release (TAR) technique in achieving successful abdominal wall reconstruction in patients with loss of domain (LOD).

Methods:

A retrospective review of patients with radiologically confirmed LOD (via Sabbagh method) who underwent TAR at Clinic Hospital Coltea between January–December 2024.

Collected data included: Patient demographics, defect size and visceral volume ratios. Use of botulinum toxin A and progressive pneumoperitoneum for patients with COPD

Outcomes assessed: perioperative complications, recurrence, and follow-up results.



Results:

Five patients (mean age: 68 years; 3 males, 2 females) were included, one with a complex 'Swiss-cheese' defect.

- Mean LOD: 28%
- Mean operative time: 180 minutes
- One postoperative complication (seroma), resolved via ultrasound-guided aspiration. No hematomas, wound infections, or recurrences
- Complete abdominal closure achieved in all cases
- Mean follow-up: 9 months

Conclusion

The TAR technique is effective and safe for addressing loss of domain, even in complex defects such as large or multifocal 'Swiss-cheese' hernias. It allows full abdominal wall closure with minimal complications, supporting its use in advanced abdominal wall reconstruction.

