

Transversus Abdominis Muscle Release (TAR) for Large Incisional Hernia Repair

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Abstract

Background: complex ventral hernia repair is a frequent and challenging topic. Reconstructive techniques are numerous but most of them are unable to achieve the goals of hernioplasty. Posterior component separation with transversus abdominis muscle release (TAR) is a novel approach that offers a solution for complex ventral hernias.

Method: The posterior rectus sheath is incised and the retro-rectus plane is developed. In a modification of the Rives-Stoppa technique, the transversus abdominis is released medial to the linea semilunaris to expose a broad plane that extends from the central tendon of the diaphragm superiorly, to the space of Retzius inferiorly, and laterally to the retro-peritoneum. This preserves the neurovascular bundles innervating the medial abdominal wall. Mesh is placed in a sublay fashion above the posterior layer. In an overwhelming majority of patients, the linea alba is reconstructed, creating a functional abdominal wall with wide mesh reinforcement.

Results: Between November 2014 and July 2016 we used this procedure in 24 patients (14 males) with large median ventral incisional hernias. The recurrence in various degrees was present in 18 patients (75%). The average size of the defect was 18,3 cm. in width (12 to 28 cm.). Five patients (21%) developed various wound complications requiring reoperation. Follow-up between 2 and 18 months (11,8 months) without recurrence.

Conclusion: TAR seems to be the "ideal" approach for complex hernias with good immediate outcomes.

Key words: large incisional hernia, posterior component separation, transversus abdominis release (TAR)