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Surgical Film

Modified rectus abdominis myoperitoneal flap for pelvic floor reconstruction

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HIGHLIGHTS

- MRAM flap can be effectively used for pelvic floor reconstruction to decrease the risk of complications.
- The skin and the anterior sheath of the fascia are preserved so the continuity of the abdominal wall is not impaired.
- It is a massive flap, easy to harvest, transpose, and create a new pelvic floor.
- It fills in the pelvic dead space, creates a mechanical bowel support and covers denuded pelvic structures.

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The most frequent cause of post-operative morbidity after pelvic exenterative procedures is an empty space left by the resection of a large amount of tissue. Often referred to as "empty pelvic syndrome," it entails many complications, such as abscess, hematoma, chronic inflammatory process, bowel or urinary fistula formation, bowel obstruction or chronic osteomyelitis of the pelvic bones or hips.

This film demonstrates pelvic floor reconstruction by a modified myoperitoneal rectus abdominis flap (MRAM) that can be used after procedures such as infralevatoric pelvic exenterations or pelvic sidewall resections. The flap is not intended to cover a skin perineal defect or create a neovagina, so the key structures for the continuity of the anterior abdominal wall, anterior fascial rectus sheath, and skin are preserved. Transposing a single or bilateral flap to the horizontal position in a U-shape to the pelvis, at the level of the previously resected muscles, mimics the removed pelvic floor. Filling in the pelvic defect prevents empty pelvic syndrome, covers any denuded structures in the pelvis, especially bone, and creates an artificial mechanical support for small bowels in the pelvis.

The film presents the anatomy on cadavers and demonstrates a technique for flap harvesting and its transposition to the pelvis in surgery. Based on our experiences, the technique has many advantages: the flap is massive, it is easy to harvest, transpose to the pelvis and create a new massive pelvic floor. The use of pelvic reconstruction by MRAM improved post-operative morbidity in our patients after procedures which are typically associated with a high risk of complications [1].

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Authors' contribution

D. Cibula developed the technique, performed the surgery and edited the video; O. Nanka contributed to the cadaveric part; R. Kocian and J. Slama contributed to the technique development and assisted the surgery.

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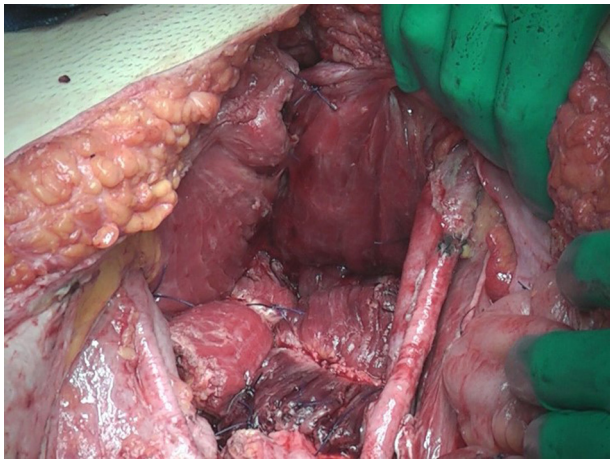
Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ygyno.2019.01.004.



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