

Abdominal Wall Reconstruction Performing Posterior Component Separation without Transversus Abdominis Release, for a Complex Incisional Hernia (M2W1, L3W2 left) after TRAM Flap Breast Reconstruction (with video)

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Abstract

Breast reconstruction with a pedicled transverse rectus abdominis muscle (TRAM) flap can result in significant abdominal wall donor-site morbidity. Although the pedicled TRAM flap donor area reinforced with mesh results in decreased rates of postoperative abdominal bulging and hernias, the best technique to accomplish that is yet to be elucidated. Antonio Espinosa de Los Monteros & all. published recently a novel technique of posterior components separation with transversus abdominis muscle release and retro-muscular mesh reinforcement for donor-area closure during pedicled TRAM flap breast reconstruction (1). In this case we present this technique using the robotic technology. The robotic surgery allows a delicate dissection of the pre-peritoneal and pre-transversalis space, which represents a posterior component separation without transversus abdominis release (TAR). It is about a 40 y.o. lady, BMI 25 who underwent a radical mastectomy and TRAM flap breast reconstruction. She developed a complex incisional hernia, M2W1 and L3W2 on the left flank, considering the EHS classification (2). Our robotic approach is a minimally invasive surgery (MIS), enhanced view totally extraperitoneal (eTEP)(3) access technique which respects and follows the principles of the original open technique. The key-stages of the procedure are: 1. development of the retro-rectus space, using an optic trocar; 2. placement of the ports, medially to the linea semilunaris; 3. crossing-over the midline; 4. dissection the contra-lateral pre-peritoneal/pre-transversalis space (without trans-section of the transversus abdominis muscle); 5. closure of the lateral defect and then, restoration of linea alba; 6. mesh placement. Combining the eTEP approach together with the posterior component separation (but avoiding TAR) and also with the benefits of the robotic surgery, this technique offers a fast recovery and excellent cosmetic results.

Key words: eTEP, complex eventration, abdominal wall reconstruction, robotic eTEP