

L3W3 Incisional Hernia with LOD – Robotic eTEP-TAR Repair (with video)

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Abstract

Introduction: The Rives-Stoppa procedure has emerged as the preferred method for ventral hernia repair, and the principles of this technique are similarly applied in minimally invasive surgery using the eTEP (enhanced view totally extraperitoneal) approach. It appears that the eTEP approach offers excellent outcomes in terms of less post-operative pain, faster recovery, and shorter hospital stays for patients undergoing abdominal wall reconstruction (AWR). It's important to note that there are some contra-indications of this procedure. In general, laparoscopic eTEP may not be suitable for cases with large hernias and loss of domain where the working space is limited. In such cases, alternative approaches, such as using a robotic platform, may be considered to ensure an adequate working space for abdominal wall reconstruction (AWR). A robotic platform can create a working space by using the robotic arms as a "laparo-lift," enabling the AWR to be performed.

Case Report: In this case, we have a 65-year-old female patient with a BMI of 28.5 who presents with a large incisional hernia with LOD. This hernia is located on the right flank and occurred after a Jalaguier incision. The CT scan provided valuable information regarding the size of the hernia, the remaining volume of the abdominal cavity, and the content of the hernia sac. Based on these radiological details, the LOD diagnosis was confirmed using the Sabbagh equation, which revealed that the hernia volume accounted for 46.47% of the total peritoneal volume. Based on the location, size of the defect, and the EHS classification for incisional hernias, the diagnosis for this case is a Complex incisional hernia of L3 right W3 with LOD. The protocol for optimization in this case involves chemo-relaxation, which refers to the injection of botulinum toxin A (BTA) into the large lateral muscles of the abdomen. This is done approximately 6 weeks before the surgery. Based on the successful reduction of the hernia during the consultation, the decision has been made to perform the Abdominal Wall Reconstruction (AWR) procedure using the robotic eTEP-TAR technique.

Conclusion: The post-operative course was favorable, with the patient experiencing early active mobilization, reduced pain, and early return of bowel movement. The patient was discharged the day after the surgery.

Key words: robotic eTEP-TAR, abdominal wall reconstruction, loss of domain, robotic abdominal wall reconstruction, incisional hernia, robotic incisional hernia repair, eTEP, eTEP-TAR, robotic TAR