ROBOTIC TRANSVERSUS ABDOMINIS RELEASE FOR COMPLEX PARASTOMAL HERNIA REPAIR: TECHNIQUE AND PEARLS FOR SUCCESSFUL OUTCOME

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Introduction: Parastomal hernia (PH) is a common and perplexing problem faced by hernia surgeons. Even more challenging is the technique of repair of complex parastomal hernias (CPH). Although there is no gold standard repair of CPH, robot assisted Transversus abdominis release (TAR) is preferred over intraperitoneal onlay techniques for avoidance of mesh viscera adhesions, fistula and need for fixation. However, TAR procedure is technically challenging with a very steep learning curve. To prevent complications and to optimize patient outcomes, proper patient selection, positioning, port placement, dissection and mesh deployment are critical. The purpose of this report is to describe the "eight" technical pearls for robotic TAR to repair CPH.

Methods: This is a retrospective review of patients who underwent robotic Transversus abdominis release (TAR) repair of CPH using "eight" technical pearls. Data, including demographics, stoma type and cause, operation time, hospital stay, and postoperative complications, were recorded.

Results: There were 13 patients (10 oncologic and three non-oncologic stomas) who underwent this procedure. Five CPH were recurrent after previous failed keyhole technique. Median operating time was 220 min (160-290). There was no intraoperative complication. No seroma or hematoma were noted. Median post-operative stay was 3 days (1-7). Median follow up was 23 months (9-32). There was one recurrence which occurred after 6 months from mesh breakdown and dehiscence of posterior fascia.

Conclusion: The technical pearls described by us aims to familiarize surgeons with a framework for TAR repair of CPH. Our results illustrate that breakdown of the procedure into series of 8 steps with mastery of each step in every case can result in a successful repair.

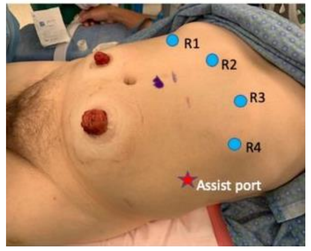
Pearl 1: Patient Positioning



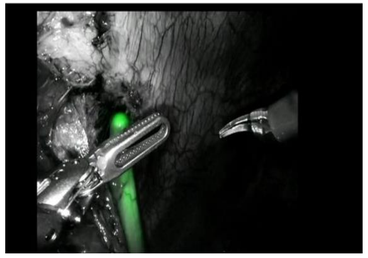
Pearl 2: Intubation of Stoma tube



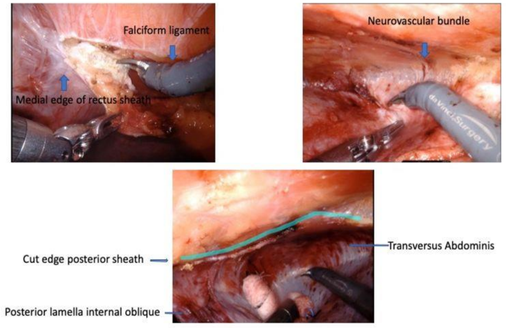
Pearl 3: Proper Port Placement



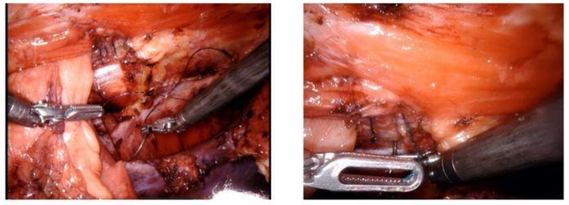
Pearl 4: Firefly aided stomal tube (FAST) identification.



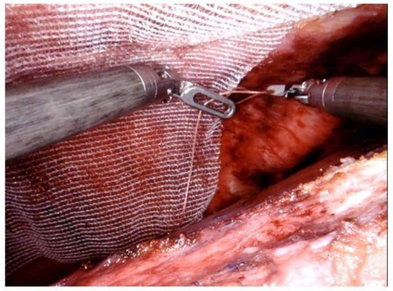
Pearl 5: Appreciate anatomical landmarks and extent of Retro rectus and TAR dissection



Pearl 6: Lateralize Stoma tube and anterior fascia reconstruction



Pearl 7: Deployment of a large self gripping mesh using a novel "sandwich techniq



Pearl 8: Tight closure of posterior sheath

