SEXUAL DYSFUNCTION AND MALE INFERTILITY AS LONG-TERM COMPLICATIONS OF INGUINAL HERNIA MESH REPAIR

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Background. Inguinal wall reinforcement with a synthetic mesh remains a gold standard therapy for a hernia with good clinical outcomes; however, presence of a prosthetic material close to the spermatic cord may influence male fertility due to vas deferens obstruction. **Objective of the study.** The aim of this study was to analyze the long-lasting impact of different hernioplasty techniques on sexual function. **Material and methods.** A bibliographic search for specialized free available English literature was performed in PubMed database according to the MeSH terms: "inguinal hernia", "prosthetic mesh", "sexual function", "fertility", article type – clinical trial, publication period – 2010-2024. **Results.** A total of 5 trials comparing the outcome of laparoscopic and open surgeries for groin hernia repair were assessed. The randomized clinical trials comparing open (Lichtenstein tension-free) *vs* laparoscopic (TAPP or TEP) approaches demonstrated no sexual changes in the groups with a significant positive impact in terms of fertility indices determined by the improvement in testicular vascularity, physical function, emotional aspects, bodily pain, and general health. The trial CTRI/2018/05/013,621 comparing laparoscopic repair TAPP *vs* TEP showed statistically significant amelioration in overall sexual function score and failed to identify differences between the groups depending on the technique. A Belgian randomized trial NCT00925067 aimed to evaluate the effects of lightweight *vs* heavyweight meshes. Even lightweight meshes are supposed to be more biocompatible due to lower body reaction and less fibrosis, they had no advantages with regard to semen analysis registered within 3 year follow-up. **Conclusion.** The studies have shown that inguinal hernia repair leads on to improvement in sexual functions and fertility indices with no significant differences based on surgical approach or synthetic mesh type. **Keywords:** inguinal hernia, mesh, hernia repair, fertility, sexual function

ACTUAL USE OF SURGICAL OPTIONS FOR LEFT-SIDED COMPLICATED COLONIC DIVERTICULITIS: COMPARING HARTMANN'S PROCEDURE *VS* COLONIC RESECTION AND PRIMARY ANASTOMOSIS

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Background. Choosing the optimal procedure for acute Hinchey III-IV perforated diverticulitis with purulent or fecal peritonitis remains uncertain because of potential selection bias. **Objective of the study.** The determine the efficiency of different surgical option (Hartmann's procedure (HP) *vs* colonic resection and primary anastomosis (PA) in terms of length of the hospital stays, economic worthiness, clinical outcomes, likelihood of stoma reversal, morbidity, and mortality rate. **Material and methods.** A bibliographic search for specialized free available English literature was performed in PubMed database according to the MeSH terms: "acute diverticulitis", "Hartmann's procedure", "colonic resection and primary anastomosis", "Hinchey classification", article type – clinical trials, publication period – 2014-2024. **Results.** A total of 4 trials demonstrating the competence of HP and PA met the inclusion criteria and were reviewed. The prospective multicenter randomized clinical trial DIVERTI demonstrated the advantage of PA in terms of lower rate of patients with definitive stoma (4% *vs* 35% respectively). The LADIES trial and the DIVA arm found that the patients in PA group had significantly better stoma-free survival (92% *vs* 81%), less in-hospital days and lower risk for parastomal hernia occurrence (1,8% *vs* 16,1%). Also, it was shown PA was more cost-effective (4382€ *vs* 8372€). The clinical trial NCT04034407 revealed that applying the principles of damage control surgery may enhance reconstruction of bowel continuity. Goodbye Hartmann trial supported the use of PA as the gold standard for surgery in patients with left-sided colonic emergencies. **Conclusion.** PA is associated with better clinical outcomes for the management of left-sided complicated colonic diverticulitis due to lower incidence of complications, better quality of life, higher stoma-free rates, and greater cost-effectiveness. **Keywords:** Hartmann's procedure, primary anastomosis, Hinchey classification