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THE ROLE OF LAPAROSCOPIC RESECTION RECTOPEXY

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Abstract. Laparoscopic rectopexy is a type of surgery that is commonly performed to repair a rectal prolapse. This condition is characterized by a protrusion of the rectum through the anus, often caused by a weakness or total loss of the normal support structures of the rectum. Rectal prolapse presents with a variety of symptoms, including bleeding, acute pain, mucus drainage, and fecal incontinence. While it can result in serious discomfort and disruption to a person's life, a rectal prolapse is completely treatable with laparoscopic rectopexy, a minimally invasive surgery that is designed to repair the damaged or weakened rectal support structures. Being a laparoscopic procedure, rectopexy surgery is typically performed through a very small incision made in the abdomen. Once the laparoscope is positioned, the surgeon will begin the process of repositioning the rectum. During this portion of the rectopexy procedure, the surgeon will carefully free the rectum from its surrounding support structures and lift it into the proper position. In most cases, stiches and mesh will be used to secure the rectum in place. To complete the procedure, the incision will then be closed using stiches.
Keywords: Rectal prolapse, laparoscopic resection, complications, monitoring**.**

Rectal prolapse refers specifically to the prolapse of some or all of the rectal mucosa through the external anal sphincter. In populations, rectal prolapse is usually a self-limiting condition, responding to conservative management. The highest incidence of rectal prolapse has been noted in the first year of life. However, children presenting after age 4 usually have a chronic condition predisposing them to have developed rectal prolapse. This activity reviews the cause, pathophysiology, and presentation of rectal prolapse and highlights the role of the interprofessional team in its management. Laparoscopic rectopexy is a well-recognized treatment option for full-thickness rectal prolapse [4–7]. Compared to open surgery, the recurrence rate and complication rates are comparable. Although the operating time is marginally longer, it offers advantages in terms of reduced postoperative pain and shorter hospital stays [2, 8]. Recently, reduced port surgery (RPS) has emerged as a concept that offers decreased postoperative pain and enhanced cosmetic outcomes compared to conventional multiport surgery (MPS). Our previous work demonstrated the feasibility of single-port laparoscopic surgery for colorectal cancer [9]. The expertise gained from single-port laparoscopic surgery for colorectal cancer cases shows significant transferability to RPS for treating benign pelvic diseases. At our institution, we use laparoscopic posterior mesh rectopexy (Wells method) to treat of full-thickness rectal prolapse. Tis study aims to assess the feasibility and safety of RPS using the Wells method for treating full-thickness rectal prolapse. Methods. We retrospectively reviewed the medical data obtained from the surgical records and charts of 37 patients who underwent laparoscopic posterior mesh rectopexy (Wells method) for full-thickness rectal prolapse at our department between October 2012 and December 2018. Tese data included age, sex, body mass index (BMI), American Society of Anesthesiologists physical status (ASA-PS) classification, history of abdominal surgery, comorbidity of psychiatric disorders, Tuttle classification, and methods of pain control. We reviewed short-term surgical outcomes including blood loss, operating time, postoperative complications, length of postoperative hospital stay, C-reactive protein (CRP) levels and white blood cell (WBC) count in the perioperative period, wound length, and postoperative delirium.regards approach (open vs. laparoscopic vs. robotic), extent of rectal

mobilization (anterior vs. anterior and posterior s. complete mobilization), addition or omission of a sigmoid resection, excision or not of the pouch of Douglas, methods used for mesh fixation, and type, size, nature andnumber of meshes used for the pexy. However, several changes were made in the traditional rectopexy procedure some of which became the gold standard.First, Cadeddu et al. [4] recently reported in a review that laparoscopic rectopexy is safe and equivalent to the open procedure in terms of technical results, recurrence, incontinence and constipation. Robotic-assisted laparoscopic rectopexy is also safe and feasible, and short-term results are comparable with those of conventional laparoscopic rectopexy. However, Ma ¨kela¨-Kaikkonen et al. [5] found no arguments to support the routine use of robotic assistance in rectopexy operations. The laparoscopic approach is currently the gold standard. Second, rectal mobilization should be limited strictly to the anterior wall of the low rectum, in order not to damage autonomic nerves [3]. Most surgeons now perform the so called D'Hoore operation, which is a ventral rectopexy and recognized as the gold standard [1]. Third, comparison between laparoscopic resection rectopexy (removing the sigmoid colon) and laparoscopic rectopexy seems to favor the second procedure: It was demonstrated by Formijne Jonkers et al. [6] last year that both operations were effective and offered significant improvements in functional symptoms, but laparoscopic resection rectopexy had a higher complication rate than laparoscopic rectopexy. Thus, the gold standard seems to be rectopexy without sigmoidectomy he abdominal techniques described up to now differ as regards approach (open vs. laparoscopic vs. robotic), extent of rectal mobilization (anterior vs. anterior and posterior vs. complete mobilization), addition or omission of a sigmoid resection, excision or not of the pouch of Douglas, methods used for mesh fixation, and type, size, nature and number of meshes used for the pexy. However, several changes were made in the traditional rectopexy procedure some of which became the gold standard. First, Cadeddu et al. [4] recently reported in a review that laparoscopic rectopexy is safe and equivalent to the open procedure in terms of technical results, recurrence, incontinence and constipation. Robotic-assisted laparoscopic rectopexy is also safe and feasible, and short-term results are comparable with those of conventional laparoscopic rectopexy. The laparoscopic approach is currently the gold standard. Second, rectal mobilization should be limited strictly to the anterior wall of the low rectum, in order not to damage autonomic nerves [3]. Most surgeons now perform the socalled D'Hoore operation, which is a ventral rectopexy and recognized as the gold standard [1]. Third, comparison between laparoscopic resection rectopexy (removing the sigmoid colon) and laparoscopic rectopexy seems to favor the second procedure: It was demonstrated by Formijne Jonkers et al. [6] last year that both operations were effective and offered significant improvements in functional symptoms, but laparoscopic resection rectopexy had a higher complication rate than laparoscopic rectopexy. Thus, the gold standard seems to be rectopexy without sigmoidectomy. Discussion Te Cochrane Review in 2008 [2] reported that there is not enough data to determine whether the abdominal or perineal approach is superior, and no difference is observed in the methods used for fixation during rectopexy. Additionally, this review noted that division of the lateral ligaments during rectopexy reduces the recurrence rate, but is also associated with an increased incidence of postoperative constipation. Furthermore, operating time is significantly longer, but hospital stay is significantly shorter, and postoperative complications are significantly less common in the laparoscopic group compared with the open group. The PROSPER trial [14]; the largest randomized trial in rectal prolapse that included patient-assessed quality of life with longer follow-up time was published in 2013. The results showed that there was no significant difference in recurrence rates, bowel function, or quality of life between any of the treatments (abdominal vs. perineal surgery, suture vs. resection rectopexy for those receiving. an abdominal procedure, and Altemeir's vs. Delorme's for those receiving a perineal procedure). The recurrence rate was higher after abdominal surgery than previously reported. Therefore, if the patient's general condition permits, it is preferable to perform rectopexy, and if technically possible, laparoscopic rectopexy is the preferred option. It has been reported that in elderly patients with fullthickness rectal prolapse, laparoscopic ventral mesh rectopexy is associated with fewer postoperative complications and a lower recurrence rate compared to perineal stapler resection [5]. While a perineal approach may be considered for elderly patients or those with comorbidities, laparoscopic rectopexy is also considered feasible for this population [16]. Previously, we performed open rectopexy, but we began laparoscopic surgery around 2006, and have been performing laparoscopic rectopexy using the Wells method as the standard procedure since around 2012. The Wells method is reported to have a recurrence rate of 3–10% and a mortality rate of 1–2%, which is comparable to other

rectopexy techniques [6]. Rectal prolapse is common in elderly people. In this study, the median age was 75 years, with the oldest patient being 89 years old, and patients aged 80 years or older accounted for 15 of the 37 cases. Important post operative complications in elderly patients include respiratory complications, circulatory complications, liver failure, and psychiatric disorders such as postoperative delirium. Postoperative delirium is a major complication in elderly patients undergoing surgery, and postoperative pain is a well-known precipitating factor. Tei et al. reported that there was no significant difference in the incidence of delirium between open and laparoscopic surgery for colorectal cancer [7]. We previously reported that single-site laparoscopic colectomy significantly reduced postoperative pain compared to conventional multiport laparoscopic colectomy [2]. Nishizawa et al. reported that the rate of postoperative delirium was significantly lower in the single-incision. Laparoscopic surgery group than in the conventional multiport laparoscopic surgery group for colorectal cancer [8]. As demonstrated in our previous study, reduced port surgery (RPS) is considered to have the advantage of reducing pain. Tis reduction in pain may be particularly beneficial in the context of rehabilitation for elderly patients, where early mobilization is crucial.Therefore, RPS may prove to be a valuable approach for this population. In this study, the methods for postoperative pain control in both RPS and MPS, such as epidural anesthesia and intravenous patient-controlled analgesia, were chosen at the discretion of the attending physician and anesthesiologist, resulting in effective pain management. Tis study, being a retrospective analysis conducted at a single institution, has its limitations, one of which is the small number of cases examined. The second limitation is the absence of statistical matching. The third limitation is that there were more patients with high BMI in the MPS group, leading to differences in patient backgrounds. Additionally, rectal prolapse is a benign disease, and patients often discontinue follow-up appointments once their symptoms improve, if no further issues arise. Consequently, cases with a favorable course tend to have shorter follow-up periods, potentially leading to insufficient monitoring for recurrence.

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