Case Report

Laparoscopic Pectopexy and Paravaginal Repair after Failed Recurrent Pelvic Organ Prolapse Surgery

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Abstract

Laparoscopic pectopexy has been described recently for pelvic organ prolapse (POP) and it could be an alternative surgery to sacrohysteropexy. A 36-year-old parity 3 women was operated cause of POP, and on her history, she had performed one sacrospinous ligament fixation with colporrhaphy anterior and one abdominal sacrohysteropexy because of POP. After 6-month follow-up, anatomic and functional cures were provided. Laparoscopic pectopexy could be an alternative procedure for recurrent POP surgery with promising results.

Keywords: Laparoscopy, paravaginal repair, pectopexy, pelvic organ prolapse

Introduction

Pelvic organ prolapse (POP) is a complex condition resulting from defects in the supporting structures of the vagina. Descending of the anterior vaginal wall, the posterior vaginal wall, the uterus (cervix), or the apex of the vagina is described the POP.[1] For POP surgery, most preferred operations are vaginal approach performing a sacrospinous fixation and abdominal/laparoscopic sacrocolpopexy.[2] Noé *et al*. concluded that laparoscopic pectopexy is a novel method for POP surgery and a good alternative to the laparoscopic sacropexy.[3] Hosni *et al*. discussed that laparoscopic paravaginal repair was associated with the least favorable outcome.[4]

Case Report

A 36-year-old, gravidity 4, parity 4 women was referred to our clinic for recurrent POP. On her history, she had no previous cesarean section and any systemic illness; she had treated 3 years ago with sacrospinous ligament fixation with colporrhaphy anterior and 1 year ago with abdominal sacrohysteropexy. On vaginal examination, procidentia was seen. Operation modality was based on her fertility desire, so laparoscopic pectopexy and paravaginal repair were decided with the patient. The informed consent of the patient was obtained to publish this case.

Surgical procedure

The patient was prepared in the dorsolithotomy position, and bladder catheter and uterine manipulator were placed. A 10-mm trochar was placed using Hasson technique, after which insufflation was initiated. Two 5-mm trochars were placed on the left side (unilateral) and one 5-mm trochar on the right side. At the posterior cervix, remained mesh and polypropylene sutures from previous surgery were seen and extracted [Figure 1]. Dissection was started with bladder, and after this, it forwards to the first right and then the left side with using the round ligament as a landmark to find iliopectineal ligament. After both iliopectineal ligaments identified, a polypropylene monofilament mesh was used to suspend cervix to each pectineal ligament with

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polypropylene sutures [Figure 2]. The peritoneum was closed with no "0" Vicryl® [Figure 3]. The bladder was fulfilled with isotonic sodium to 200 ml. After bladder board was identified, the space of Retzius was entered by making a transverse incision between two obliterated umbilical arteries. The space was dissected below the arcus tendineus fasciae pelvis (ATFP) bluntly, and endopelvic fascia defect was seen [Figure 4]. The lateral vagina was identified by the fingers of assistant's hand, and the lateral part of the vagina was suspended to ATFP with two Prolene sutures bilaterally [Figure 5a and b]. The peritoneum was closed with no "0" Vicryl®, and operation was ended. For anterior cystocele, anterior vaginal incision was done and vesicovaginal fascia was separated. Connective tissues and bladder were separated by rolling gauze-covered index finger, plication sutures were performed separately, and the redundant anterior vaginal wall was excised. The vaginal wall was closed continuous sutures. Operation time was 75 min, and mean blood loss was only 40 ml. The patient was discharged at postoperative 1st day uneventfully.

Discussion

Sacral colpopexy can be considered the "gold standard" in the correction of apical defects.[3] However, laparoscopic pectopexy was described a new method for POP surgery recently[5] and it was presented as an alternative technique for sacral colpopexy, and Noé *et al*. discussed that technique can enlarge a surgeon's technical portfolio.[3] We described "modified pectopexy" and we concluded modified pectopexy as a promising surgery for apical prolapse, with a good prognosis in terms of quality of life and sexual function.[6]

The incidence of reoperation after POP surgery differs from 6.1% to 17%.[7,8] Our case was operated two times for POP before, and native tissue repair and mesh were used in these operations. We performed an alternative technique for recurrent POP, and at 6-month visit, there was no recurrence.

Loss of apical support leads to anterior vaginal prolapse, and there is a growing recognition that adequate support for the vaginal apex is an essential component of a durable surgical repair for women with advanced prolapse.[9] If apex could not support adequately, anterior and posterior vaginal repairs may fail.[10]

Although anterior midline colporrhaphy is the classical surgery used to repair anterior compartment defects, failure rates have been reported to be up to 49%.[4] Laparoscopic paravaginal defect repair is safe and effective method and had a low morbidity for lateral vaginal defects.[11,12] Mesh-based procedure and native tissue repair were performed, and both surgeries were unsuccessful for this patient, so another procedure was required, and we performed laparoscopic pectopexy and paravaginal defect repair.

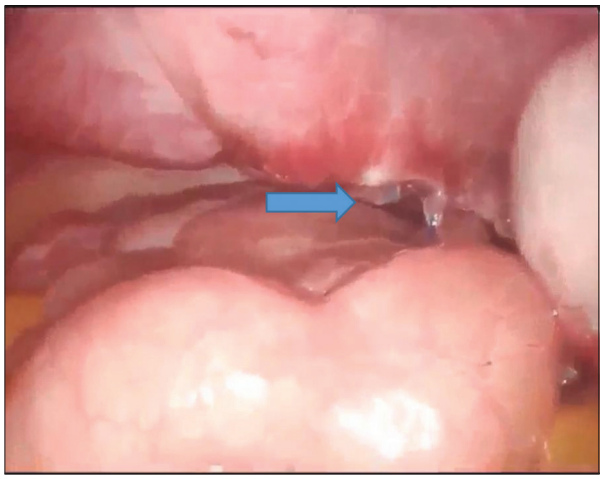

Figure 1: Remained mesh and polypropylene sutures

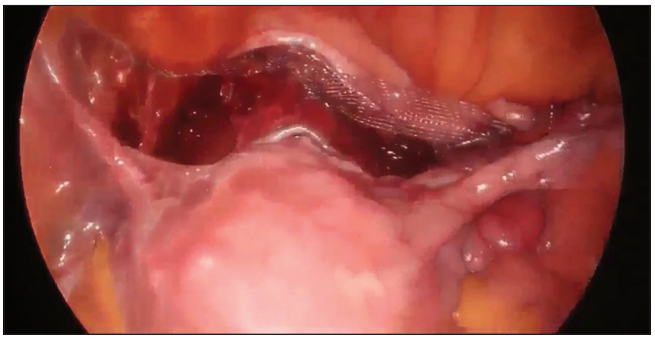

Figure 2: Pectopexy

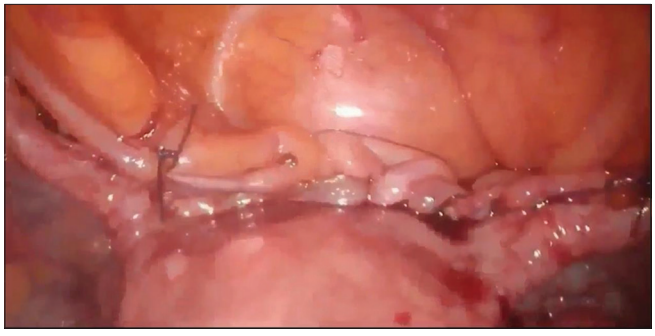

Figure 3: Peritoneum was closed

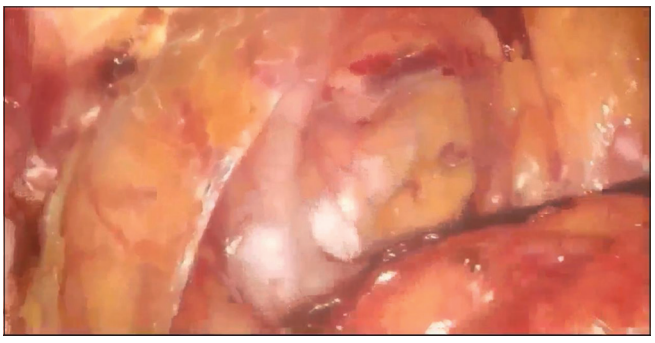

Figure 4: Retzius space

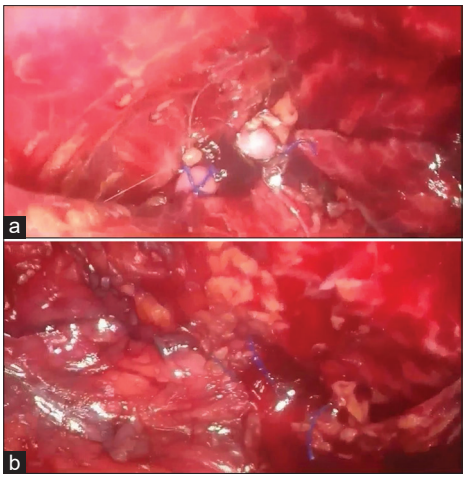

Figure 5: (a and b) Paravaginal repair of the left/right side

In conclusion, laparoscopic pectopexy could be an alternative technique for POP, especially in recurrent prolapse.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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