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Case Report

Case Report: Treatment of a Relapsed Total Pelvic Organ Prolapse in an Elderly Patient with Significant Systemic Disease

Gentile Marco*, Zinna Mariaconcetta, D'Urso Gisella, Vallicella Elisa, and Pomini Paola

Maternal and Child Department, ULSS 9 "Scaligera", Italy

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***Corresponding author:** Marco Gentile, Maternal and Child Department, ULSS 9 "Scaligera", Verona, Italy.

ABSTRACT

Pelvic Organ Prolapse (POP) is a common disease that causes serious morbidity. Surgical treatments of POP include both vaginal and abdominal techniques, which are usually performed under general aneshtesia. Nevertheless, regional anesthesia can be considered in high-risk patients. We present the case of an 81-years-old women with significant comorbidities presenting with a relapsed stage IV POP. After a multidisciplinary assessment a Le Fort colpocleisis under spinal anesthesia was performed. The follow-up visits at three and twelve months were regular, and the patient referred a significant improvement in quality of life. In conclusion, colpocleisis under regional anesthesia should be considered as a viable option in cases of pelvic organ prolapse in patients in which vaginal surgery has already failed or in those with multiple comorbidities.

KEYWORDS

Pelvic organ prolapse, Colpocleisis, Le Fort, Spinal anesthesia

INTRODUCTION

Pelvic Organ Prolapse (POP) is a common disease that causes serious morbidity, pelvic pain, chronic constipation, fecal and urinary incontinence and sexual dysfunction [1]. The prevalence is currently estimated to be from 10% to 24% [2] and important risk factors are obesity, parity, age, and previous hysterectomy [3]. Wu et al. predicted that by 2050, 43.8 millions of women in the US could be affected by a pelvic floor disorder [4].

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In POP, pelvic organs (uterus, bladder, rectum) descend and protrude through the vagina and in some cases can cause bladder outlet obstruction with hydronephrosis and renal dysfunction or small bowel obstruction [5]. Surgical treatments of POP include both vaginal and abdominal techniques. These treatments require in most cases general anesthesia, but regional anesthesia can be considered in high-risk patients [6]. We report a case of a woman with recurrent total pelvic organ prolapse treated in spinal anesthesia.

CASE REPORT

A 81-years-old women with a history of 5 spontaneous deliveries consulted our hospital for a relapsed total pelvic organ prolapse and urinary retention. She had a medical history of previous deep vein thrombosis, hypertension (for which she was taking ACE inhibitors) and pulmonary fibrosis.

In November 2021 she underwent her first surgery for uterine prolapse in a different hospital: hysterectomy with bilateral salpingo-oophorectomy was performed. In February 2022 she had a relapse for which she was treated with a vaginal sacrospinous suspension.

She first came to our attention in March 2022 with an anterior, median and posterior compartment defect that, according to the Pelvic Organ Prolapse Quantification system (POP-Q), was diagnosed as a stage IV pelvic organ prolapse (Figure 1).

Figure 1: stage IV relapsed pelvic organ.

The patient imaging (CT scan with contrast agent) confirmed cystocele, vault prolapse, enterocele and rectocele (Figure 2).

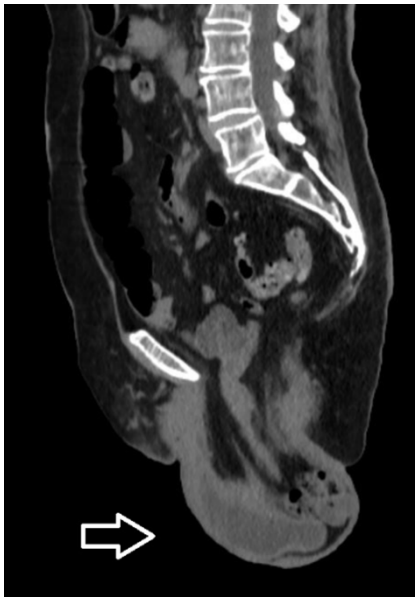

Figure 2: CT scan showing cystocele, stage IV vault prolapse, enterocele and rectocele.

A class 3 of the American Society of Anesthesiologist physical status classification (ASA 3) was assigned during the preoperative anesthesiological assessment. The patient agreed to surgery and, in agreement with the aneshtesiologist, we decided to perform a Le Fort colpocleisis under spinal anesthesia (Figure 3).

Figure 3: intraoperative image showing the result of the colpocleysis performed.

The surgery lasted 105 minutes and there were no surgical or anesthesiological complications. The post operative course was regular. On the fifth day after surgery the urinary catheter was removed and the post-void residual evaluations showed normal urinary function.

The follow up visits at three and twelve months after surgery were regular: the patient showed no signs of relapsed pelvic organ prolapse and she referred a significant improvement in urinary function, defecation and quality of life.

DISCUSSION

POP affects a great number of women and risk factors for this pathology are increased age, obesity, multiparity and previous hysterectomy [1,3]. Patients with POP complain of urinary or fecal incontinence, pelvic pain, dyspareunia and constipation [1,7]. A common procedure used in case of POP is vaginal hysterectomy associated with anterior or posterior vaginal wall repair. However, this surgery has a 11.6% incidence of subsequent vaginal vault prolapse [8]. To avoid this complication, vaginal vault suspension procedures, such as McCall's culdoplasty or sacrospinous fixation, are often performed during vaginal hysterectomy [9].

Another option is abdominal sacrocolpopexy, which is considered the gold standard in the treatment of apical prolapse [10]. Moreover, a recent review found that the long-term failure rate for abdominal sacrocolpopexy ranges from 10% to 26% [11]. Both the Cochrane Collaboration and the National Institute for Clinical Excellence (NICE) recommend abdominal sacrocolpopexy in case of apical prolapse, with similar outcomes when performed in open or laparoscopic or robot assisted surgery [12]. Sacrocervicopexy is a similar surgical technique that can be performed either with uterine preservation or after supracervical hysterectomy. This technique has a 91.8% success rate [8] and it has similar long term failure rates compared to abdominal sacrocolpopexy [11].

Lastly, colpocleisis is a vaginal surgical treatment that results in vaginal obliteration and therefore mainly reserved for frail or elderly women who no longer desire sexual intercourse [13]. However, published studies have shown that obliterative procedures, compared with reconstructive procedures, have shorter operative times, lower blood loss and less morbidity [14] with an anatomical success rate as high as 98% and satisfaction rate up to 92% [15]. Moreover, a recent review showed that colpocleisis can be considered as a viable option for POP, that does not significantly compromise QoL, body image and sexuality if a diligent patient selection is made [16].

The abdominal procedures above mentioned are mostly performed under general anaesthesia. Although there are no absolute contraindications to general anesthesia, there are several relative contraindications in high-risk patients. Regional anaesthesia should always be considered in patients with comorbidities because, compared with general anaesthesia, is associated with a lower incidence of major complications such as deep vein thrombosis, pulmonary embolism, myocardial infarction, respiratory depression, pneumonia and renal failure [17]. In addition, spinal anaesthesia is associated with lower operation time (1.93 hours vs 1.95 hours) and

minor blood loss (250.34 ml vs 625.0 ml) when compared with general anaesthesia in patient undergoing vaginal hysterectomy [18].

Interestingly, Singh et al. showed that laparoscopic surgeries are feasible and safe under combined spinal and epidural anaesthesia but further larger randomized controlled trials are required to confirm the outcome [19]. In case of multiple comorbidities, a careful assessment of risks and benefits of the different procedures and types of anaesthesia is essential to achieve the best possible outcome for the patient. For this reason, in our case report, in agreement with the anaesthesiologist and taking into consideration the clinical history of the patient, her previous surgeries and the advantages of a regional anesthesia, we decided to perform a colpocleisis under spinal anesthesia.

CONCLUSION

Colpocleisis remains a viable option in cases of pelvic organ prolapse, especially in patients in which vaginal surgery has already failed or in those with multiple comorbidities, in which vaginal or abdominal surgery under general anaesthesia might be too risky. Nevertheless, diligent patient selection is needed and a multidisciplinary assessment is essential for a good outcome and to achieve patient satisfaction.

DISCLOSURE OF CONFLICT OF INTEREST

The authors declare no conflict of interest.

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