Int Urogynecol J (2007) 18:687–688
DOI 10.1007/s00192-006-0201-z

CASE REPORT

Pyometra and recurrent prolapse after Le Fort colpocleisis

Ted M. Roth

Received: 19 February 2006 / Accepted: 3 August 2006 / Published online: 26 September 2006

Abstract The Le Fort colpocleisis is a surgical option for advanced pelvic organ prolapse in elderly and infirm women who no longer desire coital function. It is thought that the creation of adequate lateral drainage channels will prevent the occurrence of a pyometra. The author describes the occurrence of a pyometra, despite adequate vaginal channels, necessitating hysterectomy. A 78-year-old woman presented with a 3-year history of purulent vaginal discharge that began shortly after an uncomplicated Le Fort colpocleisis. She also complained of recurrent symptomatic prolapse. Radiologic evaluation revealed a pyometra, which was confirmed at the time of laparotomy. At the time of hysterectomy, she benefitted from total colpocleisis, vaginectomy, and levator plication. The approach to recurrent prolapse after Le Fort colpocleisis is discussed. The occurrence of pyometra despite adequate drainage should affect how patients undergoing obliterative procedures for pelvic organ prolapse are counseled.

Keywords Colpocleisis · Pelvic organ prolapse · Pyometra

Introduction

The Le Fort colpocleisis may be an appropriate choice for older, debilitated patients who do not wish to preserve coital function. Many published case series are limited by poor characterization of preoperative symptoms and signs and follow-up of patients [1]. Based on these series, colpocleisis remains a highly effective procedure for advanced prolapse with reported success rates of between 91 and 100% [1]. Much of the reported postoperative morbidity and mortality after colpocleisis is that which arises in any surgical procedure involving the elderly, e.g., cardiac, thromboembolic, pulmonary, and cerebrovascular events [1].

Kohli et al. [2] presented a case of a pyometra and subsequent hysterectomy, 1 month after Le Fort colpocleisis. It was thought that the pyometra developed due to obliterated lateral drainage channels. They stressed careful attention to maintaining the patency of the lateral channels to allow for drainage of infectious material, cervical secretions, and the detection of uterine bleeding [2].

The author presents an unusual case of pyometra and recurrent prolapse after Le Fort colpocleisis that occurred despite adequate lateral drainage channels. The management of recurrent symptomatic prolapse after colpocleisis is briefly reviewed.

Case report

A 78-year-old woman was referred to our office for evaluation of recurrent prolapse and profuse drainage of pus per vagina for 3 years, which began shortly after an uncomplicated Le Fort colpocleisis and Kelly plication of the bladder neck. Her physician treated her with po antibiotics on multiple occasions without resolution of her vaginal discharge and without imaging of the pelvis. She denied any constitutional symptoms of fever, urinary incontinence, or voiding dysfunction. Her past medical history was significant for tobacco abuse and chronic obstructive pulmonary disease. On physical examination, she was noted to have stage III C prolapse. There was frank

T. M. Roth (✉)
Women's Specialty Center, Central Maine Medical Center,
287 Main Street,
Lewiston, ME 04240, USA
e-mail: troth@maine.rr.com

pus in the vault draining superiorly from both lateral drainage channels. Her abdomen was benign without distension or tenderness, and there were no palpable inguinal masses or lymphadenopathy.

Pelvic ultrasound revealed an enlarged uterus with an echogenic complex mass within the uterine cavity measuring 9×6×6 cm. A follow-up computerized tomography (CT) scan was performed, which demonstrated no uterine fistulae, lymphadenopathy, or evidence of pelvic or extrapelvic metastases. Laboratory tests revealed a normal WBC and hematocrit. Decision was made to proceed with exploratory laparotomy.

Abdominal survey revealed no signs of metastasis or lymphadenopathy, and the uterus was found to be enlarged and boggy. Total abdominal hysterectomy, bilateral salpingo-oophorectomy, and upper vaginectomy were performed without gross spillage of pus. Intraoperative pathologic evaluation of the specimen revealed no evidence of malignancy. A Halban's culdoplasty was performed. The remaining prolapse was corrected vaginally with total colpocleisis and vaginectomy with high levator plication. A Bonano suprapubic tube was placed at the time of cystoscopy.

The patient had an uneventful postoperative course. She was discharged home without the suprapubic tube on day 2. She has been observed for 6 months with good reduction of her prolapse and without urinary complaints.

Discussion

Colpocleisis requires the removal of vaginal epithelium and the development of a so-called midline septum for reduction of prolapse, resulting in a loss of coital function, and is only appropriate for a small proportion of women with advanced pelvic organ prolapse. Advantages of the procedure include choice of anesthetic, short recovery time, reduced operative time, small risk of significant postoperative complications, and low failure rate. [1, 2] Serious complications following colpocleisis are uncommon.

Our patient developed a chronic suppurative vaginal discharge shortly after her Le Fort colpocleisis, which was later recognized as a pyometra through radiologic imaging of the pelvis. The pyometra occurred despite obvious adequate lateral drainage channels (allowing the pus to drain into the vagina) in distinction to the case by Kohli et al. [2] that was thought to have occurred secondary to the obliteration of these channels. Those authors detailed and emphasized the importance of techniques to create adequate lateral channels. It is possible that in our patient, the patency of the channels was compromised at some point, which allowed for an ascending infection and the development of a pyometra, and then the channels recannulized to allow for her symptomatic discharge.

The author's preference is to perform vaginal hysterectomy concurrent with a colpocleisis. Two recent retrospective studies [3, 4] reveal that concurrent hysterectomy leads to some added morbidity. In Hoffman et al.'s [3] series, estimated blood loss, operative time, and day of discharge were statistically significantly higher in the hysterectomy group ($p<0.05$). In von Pechmann et al. [4], there was no significant difference in success (prolapse to the hymen or beyond) between the hysterectomy and nonhysterectomy groups, although the study may not have been adequately powered to detect such differences.

Very little has been written on the topic of management of recurrent prolapse after prior colpocleisis. In two series and one case report, the patient was cured of her prolapse by repeating the colpocleisis procedure [2, 5, 6] or by performing perineorrhaphy. Both approaches seem to be successful in symptom relief; however, this relatively rare event has not been formally studied. Laparotomy was performed abdominally because of the association between pyometra and uterine carcinoma in postmenopausal women [7, 8]. We performed a Halban's culdoplasty at the time of the laparotomy and completed the remainder of the repair vaginally using total colpocleisis, colpectomy, and levator plication.

In counseling our patients regarding the risks and benefits of their surgical options for treatment of advanced pelvic organ prolapse, we must also consider the occurrence of pyometra after Le Fort colpocleisis, the added but seemingly minor morbidity with concurrent hysterectomy, and no decrease in durability with concurrent hysterectomy.

References

1. Fitzgerald MP, Richter HE, Siddique S, Thompson P, Zyczynski H, Weber A (2006) Colpocleisis: a review. Int Urogynecol J Pelvic Floor Dysfunct 17(3):261–271
2. Kohli N, Sze E, Karram M (1996) Pyometra following Le Fort colpocleisis. Int Urogynecol J Pelvic Floor Dysfunct 7: 264–266
3. Hoffman MD et al (2003)Vaginectomy with pelvic herniorraphy for prolapse. Am J Obstet Gynecol 189:364–371
4. von Pechmann WS, Mutone M, Fyffe J, Hale DS (2003) Total colpocleisis with high levator plication for the treatment of advanced pelvic organ prolapse. Am J Obstet Gynecol 189: 121–126
5. Hanson GE, Keettel WC (1981) The neugebauer-Le Fort operation: a review of 118 partial colpocleisis. Eur J Obstet Gynecol Reprod Biol 12:31–35
6. DeLancey JO, Morley GW (1997) Total colpocleisis for vaginal eversion. Am J Obstet Gynecol 176:1228–1235
7. Goodman A, Zuckerberg LR, Rice LW et al (1996) Squamous cell carcinoma of the endometrium: a report of eight cases and a review of the literature. Gynecol Oncol 61:54–60
8. Marchetti M, Vasile C, Chiarelli S (2005) Endometrial cancer: asymptomatic endometrial findings. Characteristics of postmenopausal endometrial cancer. Eur J Gynaecol Oncol 26:479–484