CASE REPORT

Complete Cervical Stenosis Following Cesarean Section & VVF Repair

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Received: 11 February 2010 / Accepted: 5 June 2012 / Published online: 12 March 2013
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Introduction

There is no consensus in the literature regarding the definition of cervical stenosis. It is most commonly defined as the stricture of the internal cervical os. Because of the different definitions used, the incidence observed by each author has also varied (from 0 to 25.9 %) [1, 2]. Cervical stenosis may be congenital or acquired. The most common acquired causes are cervical or uterine cancer, menopause, extensive surgical manipulation of the cervix [3], and inflammatory and radiation therapy. We report here a rare case of cervical stenosis with hematometra secondary to a previous vesicovaginal fistula (VVF) repair which required a hysterectomy.

Case Report

A 36-year-old lady from West Bengal, India, Para 1 with no living children, presented with cervical stenosis and hematometra. Her surgical history commenced in 1993 when she underwent a cesarean section for obstructed labor and developed VVF post-operatively, which was subsequently repaired via the abdominal route. In 2000, she underwent laparoscopy for secondary infertility, and on the third post-operative day, developed bowel obstruction and had laparotomy for the same. The details of these four surgeries were not available for reference. In 2006, an open cholecystectomy with mesh repair of an incisional hernia was performed at the Christian Medical College and Hospital, Vellore, South India. Two years later, she had recurrent cervical stenosis and underwent cervical dilatation with drainage of hematometra thrice, the details of which were not available for reference. In November 2008, she presented to us with acute abdomen and was diagnosed to have hematometra. During this visit, on examination, her vital signs were stable and systemic examination was normal. No findings were elucidated per-abdominally except for the multiple surgical scars. Per-vaginal examination showed the cervix which was high and stuck to the anterior vaginal wall, more to the left, with no appreciable anterior fornix. The uterus was bulky, anteverted, with restricted mobility, and bilateral forniceal fullness was present. Ultrasonographic examination showed a uterus with hematometra, a 33 × 21 mm thin-walled cyst with septum in the left ovary and a 22 × 30 mm simple cyst in the right ovary.

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She underwent an examination under anesthesia and drainage of hematometra. At this point in time, we did not consider offering her an endometrial thermal balloon ablation or a transcervical resection of the endometrium because of the past history of VVF repair and a relatively inaccessible cervix. She was also not considered for hysterectomy at this time due to her young age and we thought it prudent to start her on extended cycle OCPs. However, she continued to collect blood within her uterine cavity and was having significant abdominal pain and presented to us again within 2 months of our index dilatation. A Urology and General Surgical consult was sought for intra-operative help, the bowel was prepared, and she was taken up for a laparotomy with a view to remove the uterus (Fig. 1).

Intra-operatively, there were dense adhesions of the bowel onto the anterior abdominal wall. The fundus and the posterior walls of the uterus and both tubes and ovaries were all engulfed with the bowel. The bladder was densely adherent to the anterior uterine wall and cervix with no dissectible plane between the bladder and uterine tissue. The uterus was about 12 weeks' gravid size. There was a hydrosalpinx on the left side. The right tube was normal. Both the ovaries had endometriomas about 5×5 cm each. She underwent laparotomy and release of bowel adhesions with subtotal hysterectomy with bilateral salpingo oophorectomy in February 2009. The cervix and a small portion of the anterior uterine wall with endometrium, about 3×3 cm in size, which were found to be densely adherent to the bladder were left behind as removing it would have damaged the bladder and probably the ureters. The residual

endometrium was cauterized with roller ball cautery per-operatively. The hysterectomy specimen contained altered blood, but was otherwise normal. She had an uneventful post-operative period and was discharged on the 6th post-operative day. Considering her young age, it was decided that she would be given hormone replacement till the age of 45 and as she had endometriosis, it was decided that she would be given Injection DMPA 150 mcg IM every 3 months for 2 years followed by hormone replacement therapy with combination estrogen and progesterone. Now, 2 months after the surgery, she is doing well at home (Fig. 2).

Discussion

Cervical stenosis may be complete or partial. It may result in hematometra, possibly causing endometriosis and pyometra. Symptoms in peri-menopausal women include amenorrhea, dysmenorrhea, infertility, abdominal discomfort, and pelvic mass [3]. The suspicion of cervical stenosis arises based on (a) the inability to obtain endocervical cells or an endometrial sample for diagnostic tests, Pap test [4], and (b) if a 1- to 2-mm-diameter probe cannot be passed into the uterine cavity. If cervical stenosis causes symptoms or uterine abnormalities, cervical cytology and endometrial biopsy should be done to exclude cancer. Treatment is indicated only if symptoms or uterine abnormalities are present and may involve cervical dilatation. This procedure thereby gradually stretches open the cervical canal.

Fig. 1 Uterus with hematometra

Fig. 2 Ovaries

Complications of the procedure are rare and they may include perforation of the uterus or reclosing of the cervical opening [6]. In one study when cervical stenosis was not responding to medical or conservative surgical management, hysterectomy was seen to be a reasonable option [5]. We report this unusual case of cervical stenosis which we presume is secondary to injury during the initial surgery which produced a vesicovaginal fistula and was subsequently repaired. In this case, serial cervical dilation was technically difficult and not successful in reducing the pain due to her condition. We were also not able to consider thermal ablation of the endometrium or transcervical resection of the endometrium because of her past history. Hence, we proceeded with hysterectomy knowing the technical difficulties involved in this surgery. The residual endometrium was cauterized per-operatively which to our knowledge, has not been reported in the literature before.

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