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Case Report

Proximal cervical agenesis-laparoscopic reconstruction done in a 13-year-old girl

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ABSTRACT

Cervical agenesis occurs in 1 in 80,000 to 100,000 births, and in 50% of cases it coexists with congenital vaginal agenesis. Isolated cervical agenesis is very rare. We report a case of 13-year-old girl with isolated proximal cervical agenesis. Laparoscopic reconstructive surgery was done. Anastomosis was established between uterus and distal cervical bud. Patient had regular cyclical menstruation following surgery.

Keywords: Cervical agenesis, Laparoscopic reconstructive surgery, Primary amenorrhea

INTRODUCTION

Some form of mullerian aplasia, hypoplasia, or agenesis affects 1 in every 4000 to 10,000 females and is a common cause of primary amenorrhea (ACOG, 2018). Isolated cervical agenesis occurs in 1 in 80,000 to 100,000 births, and in 50% of cases it coexists with congenital vaginal agenesis. According to the AFS classification, type I includes all cases of hypoplasia/agenesis; congenital agenesis or dysgenesis of uterine cervix are classified as type IB. According to ESHRE/ESGE classification, it is classified in Class C4 category.[1,2]

The conservative surgical management of women with these malformations remains controversial and hysterectomy is still proposed as a primary treatment option.[3-5] Recently, several surgeons have reported successful cyclic menstruation and pregnancy after uterovaginal anastomosis.[3,6]

CASE SERIES

A 13-year-old female presented to us with complaints of cyclical abdominal pain for past 2 months with history of diagnostic laparoscopy done at local hospital for suspected ovarian torsion. Intra-operative findings were mentioned as 50 ml of blood in pelvis, uterus not having communication with cervix except a band? hypoplasia of cervix. Patient reported to us with this history. Examination was done. She had age-appropriate secondary sexual characters and normal female external genitalia. Gentle per vaginal examination was done with one finger, vagina was patent. Approximately 1.5 cm length of cervix was felt in vagina with pin point external cervical os. MRI was done which demonstrated partial proximal segmental hypoplasia of cervix with no contiguity between the uterus and remaining portion of cervix. There were no associated renal anomalies and rest of abdomen was un-remarkable. The condition was explained to her parents and after proper informed consent and thorough evaluation, patient was planned for laparoscopic reconstructive surgery. Four ports were created, 10 mm supraumbilical, two 5 mm right lateral ports and one 5 mm left lateral ports were created. Intraoperative findings were as, uterus fundus and body were seen, lower segment was absent. Right broad ligament was absent. On left side, thin broad ligament with a band of tissue was seen from lower part of uterus on the left to the anterior abdominal wall and left lateral pelvic wall. The band was adherent to rectum posteriorly (Figure

1a). Cervical bud was visualised after manipulation from below with the Hegar's dilator. On per-speculum examination vaginally, 1.5 cm of cervical length was seen. External os was seen. Dissection proceeded laparoscopically. Peritoneal fold over the cervical bud opened, bladder pushed down and rectum separated from the band, hence, cervix delineated (Figure 1b). Cervix opened on the pelvic floor with the help of dilator from the vaginal end and the os created (Figure 1c). The lower end of the uterus opened with the extension of 1 cm on the anterior wall (Figure 1d) and endometrial cavity opened.

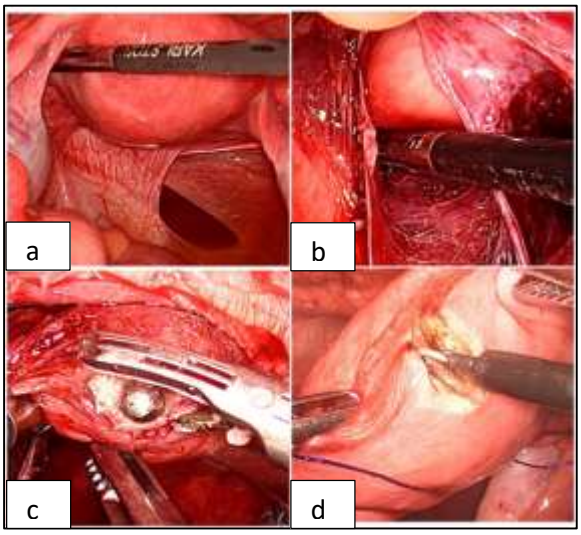

Figure 1: (a) Band from blind end of uterus to rectum and left lateral pelvic wall. (b) Dissection over cervical bud for delineation of cervical bud. (c) Cervical opening created with harmonic. (d) Incision over lower end of uterus with monopolar hook.

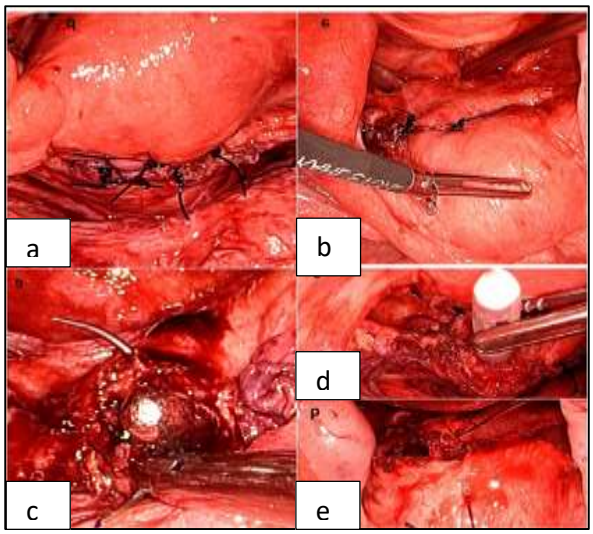

Figure 2: (a and b) Uterocervical anastomosis started posteriorly. (c) Silicon catheter placed at the anastomotic site. (d and e) uterocervical anastomosis with interrupted sutures, anteriorly and posteriorly, respectively.

Uterocervical anastomosis started posteriorly (Figure 2a and 2b). Silicon catheter introduced from the vaginal end into the uterine cavity (Figure 2c) and utero-cervical single layer anastomosis performed in interrupted fashion using 1-0 PDS, with silicon catheter in situ (Figure 2d and e). On postoperative day 1, silicon catheter slipped. Under sedation, pigtail catheter was placed under ultrasound guidance. USG done on POD 3, pigtail catheter was in situ and patient was discharged. Patient was given 3 months of OCPs. After three months, patient was reviewed in OPD and pigtail catheter was removed under sedation. Patient was followed 3 monthly and had regular cyclical menstruation.

DISCUSSION

Transverse cervical defects (AFS type IB) could be subdivided into cervical agenesis and dysgenesis. Cervical dysgenesis is classified into three groups. In the first group, there exists a well-formed cervix, but a portion of endocervical lumen is obliterated. In the second group, a cervical cord of variable length and diameter is noted with a completely obliterated endocervical canal. In the third group, fragmentation of the cervix is noted. In the latter group, several fragments of the cervix or sometimes only a single fragment can be noted to separate the cervix from the uterine corpus.[7] Our case comes under the latter group.

CONCLUSION

Cervical malformations represent an obstructive anomaly. Any pubertal female with primary amenorrhea and a history of cyclical abdominal pain should raise suspicion cervical malformations. Clinical examination should include inspection and palpation, ultrasound, and MRI. Surgical exploration sets the final diagnosis. The restoration of utero-cervix/ neocervix-vagina/ neovagina continuity in the patients with cervical malformations constitutes the surgical approach with multiple challenges. A strategy to minimise the sequelae is important.

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