Unique minimally invasive management of cervicovaginal agenesis

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DESCRIPTION

A 10-year-old premenarchal girl presented with worsening abdominal pain for 3 months. She had undergone laparotomy twice at 1 and 9 years of age for urogenital sinus and subacute intestinal obstruction, respectively. Abdominal examination revealed two healed, puckered scars (midline vertical infraumbilical and transverse suprapubic) and a suprapubic bulge corresponding to 14 weeks of uterus. Local examination showed a blind vaginal pouch (figure 1A). No cervical tissue was felt on rectal examination. Ultrasound (USG) pelvis suggested collection in endometrial cavity, that is haematometra (figure 1B). A provisional diagnosis of cervicovaginal agenesis (U0C4V4) was made. These findings were confirmed by MRI. In view of high possibility of intra-abdominal adhesions owing to previous two laparotomies, USG-guided transvaginal cervicovaginoplasty was planned.

First, McIndoe vaginoplasty was performed by dissecting in between the bladder and the rectum. A bluish bulge was seen at the apex of the neovagina. Under USG guidance, a long artery forceps was introduced through the vaginal bulge and pushed into the endometrial cavity (figure 1C,D). Soon after that, approximately 200 cc of chocolate-coloured fluid was drained out (figure 2A). To keep the neocervix patent, a silicone malecot's catheter 16 French was inserted in the uterine cavity

Figure 2 (A) Illustrates drainage of chocolate-coloured fluid from the endometrial cavity. (B, C) A silicone malecot's catheter encircled by foam mould being inserted in the uterine cavity. USG, ultrasound.

through the neocervix, and the foam mould encircling the malecot catheter was kept in the neovagina (figure 2B,C) to avoid reapproximation of the vaginal walls. There were no intraoperative and postoperative complications. The foam mould was replaced by a glass mould on the seventh postoperative day while the malecot catheter was kept in situ. The patient is having normal menses for the last 9 months.

The occurrence of cervical agenesis is quite uncommon (1:80 000–1:100 000) and only 39% of these cases simultaneously have vaginal agenesis.^{1,2} Initially, these cases were managed by hysterectomy or abdominal cervicovaginoplasty.^{3–5} Later, a minimally invasive approach came to light with the advent of laparoscopy and surgical expertise.^{6–9}

The aim of conservative management (open/laparoscopic) is to preserve the uterus by creating a path from the endometrial cavity to the vagina for the

Figure 1 (A) Image shows blind vagina. (B) Ultrasound image suggestive of collection in the endometrial cavity (haematometra). (C, D) Images depict the introduction of a long artery forceps into the endometrial cavity under ultrasound guidance.

Patient's perspective

Our young daughter was suffering from abdominal pain every month for 3 months in the last year. She was found to have some congenital anomaly in which the birth canal was not formed by birth. We were worried as our little daughter has already undergone two abdominal surgeries and doctors outside explained a high chance of injury to intestine. Then we came to this hospital. Here the doctor performed the procedure with the help of ultrasound. We were happy after the procedure as she was relieved of her monthly abdominal pain, and she is now having regular menstrual cycles. She is using vaginal mould on her own and we regularly visit gynaecology outpatient department for follow-up.

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Learning points

- Cervical agenesis is a rare entity and less than 40% of cases are associated with vaginal agenesis.
- Cervicovaginal agenesis is routinely managed by hysterectomy or abdominal cervicovaginoplasty.
- Ultrasound-guided creation of neocervix without entering the abdomen is a challenging procedure and must be performed with caution, by gynaecologists trained in ultrasound-guided procedures.

passage of menstrual blood. In our case, we performed a similar procedure vaginally under USG guidance. The procedure was technically difficult as the abdomen was not entered. However, such a technique carries a high risk of bladder and rectal injury. Hence, it should be performed with caution and only performed by gynaecologists expert in USG-guided procedures.

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