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Pregnancy with Uterine Didelphys with Obstructed Hemivagina and Pyocolpus

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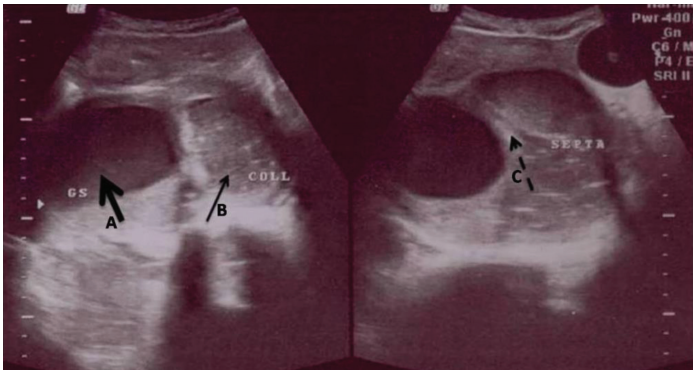
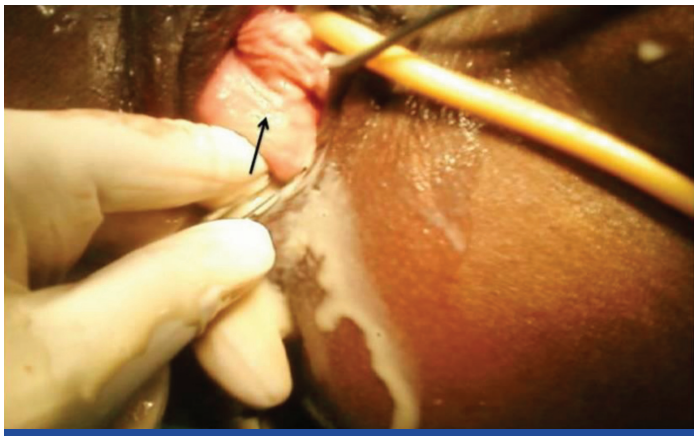
A 27-year-old primigravida with seven months gestation presented with complaints of pain abdomen and vomiting for last three days. She has been treated twice in the past for similar complaints in some local hospitals. There is also past history of dysmenorrhea with scanty menstrual flow in each cycle. Medical and surgical history was inconclusive. General physical examination was unremarkable. Uterus was of 26 week size and relaxed, with a firm oblong tender mass (10cm x 8cm x 6cm) felt on the right iliac fossa arising from the pelvis and attached to the right side of uterus with restricted mobility. Vaginal examination showed a large cystic bulge in the right lateral vaginal wall that was non-tender, tense and contained fluid. On the left side, cervix was seen with the help of a long bladed speculum, whereas the right side cervix could not be felt as there was a vaginal septum partially obstructing the vagina [Table/Fig-1].

Laboratory investigation showed hemoglobin of 8.8 g%, WBC count of 16800/cumm with 85% polymorphs. Renal and liver function tests were normal. Ultrasonography showed a single, live fetus of 27+3 weeks gestation with adequate liquor. A separate uterine cavity (without communication with the main uterine cavity) with heterogeneous collection was seen towards right of the pregnant uterus [Table/Fig-2]. A septum is also visible extending from the midpelvis up to the introitus. A cystic swelling (8cm × 7cm × 6cm) posterior to bladder, in continuation of the right uterine cavity (non-pregnant) with echogenic collection was present. The findings pointed towards vaginal location of the collection. Rest of the abdominal organs including the ovaries were normal.

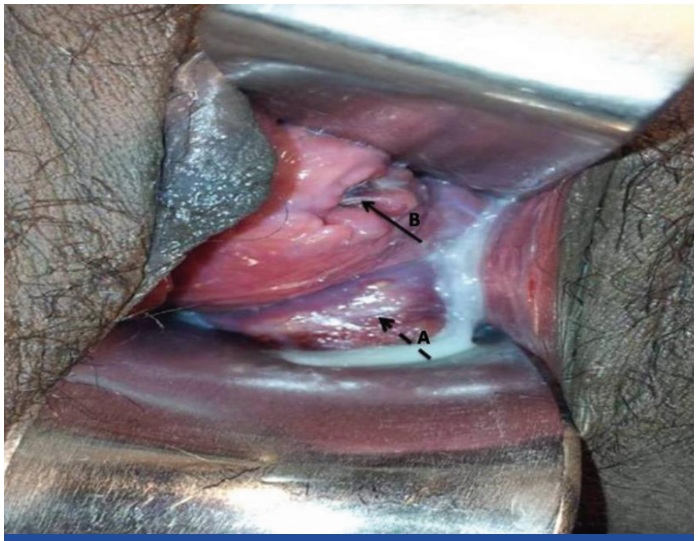
Through transperineal approach under general anaesthesia, a transverse incision was given over the cyst after catheterizing the bladder, and around one litre of pus was drained [Table/Fig-3]. Intravenous antibiotics were given. Patient was relieved of her symptoms. Follow up ultrasonography after 48 h revealed complete disappearance of pyocolpos. She was kept under follow up which was uneventful. Finally, she delivered a female child at 37+3 week gestation by normal vaginal delivery.



[Table/Fig-1]: Ultrasonography image showing a uterine cavity with gestational sac (Arrow A), a separate uterine cavity with heterogenous collection (Arrow B), and a septum (Arrow C)



[Table/Fig-2]: Intraoperative image showing vaginal bulge (Arrow) draining pus on incision, and a urinary catheter just above it



[Table/Fig-3]: Postoperative image (on day 8) showing cervix of the left pregnant horn (Arrow A), and non-visualisation of right side cervix because of a drained vaginal septum (Arrow B) partially obstructing the vagina

DISCUSSION

Uterine anomalies are associated with both normal and adverse reproductive outcomes; they are associated with difficulty maintaining a pregnancy, and not an impaired ability to conceive [1,2].

Uterus didelphys is a class III mullerian anomaly having two uteri, two endometrial cavities, and two cervices. [3]. A septate vagina occurs in 75% of cases. It is generally limited to uterus and cervix, although duplication of vulva, bladder, urethra, vagina and anus may occur. The mean incidence of uterus didelphys has been shown to be around 11% [1,4]. This uterine anomaly is associated with modest reproductive outcomes: a pooled spontaneous abortion rate of 32.2%, a preterm birth rate of 28.3%, a term delivery rate

of 36.2%, and a live birth rate of 55.9% [1] Other clinical features include dysmenorrhoea, pain abdomen, infertility, dyspareunia, paravaginal mass, excessive foul smelling muco-purulent discharge, intermenstrual bleeding, intrauterine growth retardation, and postpartum bleed. Untreated cases develop retrograde tubal reflux and endometriosis. MRI is the investigation of choice.

The management of uterus didelphysis is controversial. In women with recurrent pregnancy loss or preterm delivery, uterine reconstruction with the Strassman metroplasty should be considered [5,6]. The Strassman metroplasty achieves unification of two endometrial cavities in a divided uterus (bicornuate or didelphys), and is associated with a live birth rate greater than 80% [6]. Several experts believe, however, that existing data do not support repair of uterus didelphysto improve pregnancy outcome [2,7,8]. In contrast, incision of the longitudinal vaginal septum is indicated for an obstructed hemivagina with hematocolpos, dyspareunia, or difficulty with tampon placement.

Finally, a high index of suspicion is warranted in adolescents and reproductive-age women with any of the above mentioned features. Detailed imaging of the genito-urinary tract including MRI is indicated. When the anomaly is identified, the woman should be counselled about reproductive prognosis, pregnancy outcomes, and evidence-based management. Prompt diagnosis and surgical management as done in the current case should be done to prevent any complication.

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