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A RARE CASE OF TRANSVERSE VAGINAL SEPTUM PRESENTING WITH PRIMARY AMENORRHEA

Obstetrics & Gynaecology

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ABSTRACT

Transverse Vaginal Septum is a rare congenital anomaly of the female genital tract. It may be obstructive or non-obstructive, and patients with obstructive features are diagnosed earlier. Common presentations include lower abdominal pain, urinary retention, and constipation in the background of primary amenorrhoea. Herein, we present a case of a 13-year-old adolescent girl who presented with acute lower abdominal pain and urinary retention. A mid-vaginal transverse septum was observed on vaginal examination. On sonography, significant hematocolpos were visualised and a septate uterus was noted. The patient underwent a complete excision of the transverse septum. The postoperative period was uneventful, and the patient began to have normal menstruation. Early diagnosis, adequate surgical management, and proper follow-up are key to successful management of transverse vaginal septae. Further research is necessary to better classify and standardise treatment protocols due to the paucity of reported cases.

KEYWORDS

Transverse vaginal septum, Primary amenorrhea, Hematocolpos, Septate uterus

INTRODUCTION

Transverse Vaginal Septum (TVS) is one of the most uncommon congenital anomalies of the female reproductive system, having been reported with an incidence anywhere between 0.1% to 3.8%, and affects 1 in 70000 girls.[1] It tends to escape early diagnosis, and the usual presentation is a young girl with primary amenorrhea and cyclical abdominal pain, who tends to have hematocolpos on examination. Although the cause is not identified, the inheritance is known to be autosomal recessive, and it is presently attributed to the vaginal plate located between the Müllerian tubercle and urogenital sinus failing to canalise.[2]

Owing to the rare nature of the disease, there is no standard classification system, but it may usually be classified based on the location of the septum as low, mid, or high. It can also be either microperforate or imperforate, and most septae are usually less than 1cm in thickness.[3] Furthermore, the classification developed by Attaran et al. described obstructive and non-obstructive types, as the obstructive type usually produces obstructive symptoms in the bowel or bladder and will be diagnosed earlier.[4]

The ASRM Classification of female reproductive tract anomalies broadly lists transverse vaginal septae under two categories: mid-vaginal septae and distal vaginal agenesis.[5] The uncommon nature of the disease entails a multimodal presentation that has been described in various reports, as well as various strategies adopted for its management.

Herein, we present a case of a mid-vaginal transverse septum that presented with acute urinary retention and was managed at our hospital.

Case Report

Patient demographic details

We present the case of a 13-year-old girl who presented to our outpatient department with lower abdominal pain and acute urinary retention for one day. She was febrile and had a history of chills and rigors associated with fever the previous day. On detailed history seeking, we ascertained that this was in the background of primary amenorrhea. On general physical examination, well-established secondary sexual characteristics were observed. Vaginal examination revealed a transverse vaginal septum in the mid-vagina and a capacious lower vagina.

Clinical and diagnostics examination

We decided to proceed with sonography of the abdomen and pelvic areas for further evaluation. On sonography, a uterus of size 5.9 × 3.1 × 6 cm was visualised on sonography, with two separate endometrial cavities distended with hyper-echogenic content, suggestive of a septate uterus with hematometra. The cervix and vagina were visualised as well, and grossly distended measuring 8.6 × 4.9 × 5.6 cm. Evidence of hematocolpos, fluid exhibiting low-level internal echoes, and dependent hyperechoic content were noted in the cervix and vagina, extending superiorly into the endometrial cavity. Sonography was also used to assess urinary tract anomalies, but none were noted.

We decided to proceed with surgery as the next line of treatment. A transverse incision was made, and the haematoma was drained. This was followed by complete excision of the vaginal septum. Cervical and vaginal catheters were placed in situ (Figures 2A and B).

Postoperative findings

The postoperative period was uneventful, and the patient was discharged on the third postoperative day. The cervical and vaginal catheters were removed on the 14th postoperative day.

Follow-up

The patient was followed up for six months. Physical examination revealed mild narrowing of the mid-vagina, which was inconsequential. The patient was instructed to use a vaginal dilator to ensure vaginal patency. She began menstruating normally and had no other complaints. Adequate support in the form of counselling to ensure psychosocial and reproductive health awareness was provided.

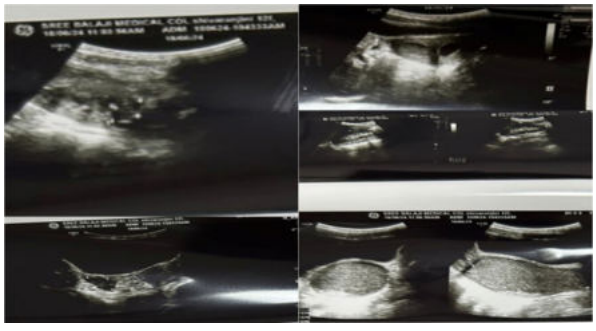

Figure 1. ultrasonographic image of Transverse vaginal septum

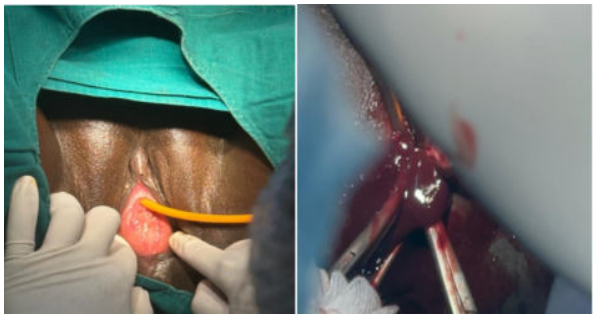

Figure 2 A and B. Preoperative and Intraoperative images Of

haematocolpos

DISCUSSION

Lower abdominal pain and acute urinary retention due to expanding haematoma are the most common primary complaints reported in cases of transverse vaginal septum. Most cases are diagnosed around the menarche period, although in very rare cases where micro-perforations are present, there may be a presentation at the neonatal stage with an ascending infection. When longitudinal septae are present, there may be a slight delay in diagnosis compared to transverse vaginal septae.[6]

Ultrasound and Magnetic Resonance Imaging (MRI) remain widely used investigative modalities. Sonography is non-invasive, inexpensive, quick, and easily available, and is an excellent tool to characterise the nature of anomalies and enables visualisation of the uterus, cervix, and vagina at high resolution.[7] It is vital to evaluate the cervix, and while it was distinguishable by sonography itself in our study, magnetic resonance imaging may be able to provide accurate characterisation of the soft tissue, including details such as the length of the cervix, thickness of the septum, and patency of the vagina which could all aid in preoperative planning and intraoperative decision making.[8]

Various surgical modalities have been adopted to treat transverse vaginal septum, including simple excision, excision and approximation of the vaginal edges, split-skin grafting, grafting with a buccal pad of fat, and Z-plasty with modifications. Decision-making is influenced by the thickness of the septal tissue, cervical length, concerns about vaginal patency, and the possibility of developing secondary contractures. There have been reports of successful vaginal, laparoscopic, and abdominal approaches.[9] Therefore, we adopted a vaginal approach, considering the mid-vaginal location.

One complication most gynaecologists are worried of is vaginal stenosis, and postoperative vaginal dilatation can help prevent the development of the same. Although there is much debate about the timing of surgery, it has been proposed that early surgery at the time of diagnosis can help preserve fertility and prevent the occurrence of endometriosis.[10]

CONCLUSION

The transverse vaginal septum is a rare Müllerian duct anomaly. In gynaecological practice, one must always be attentive to the possibility of TVS in adolescent girls presenting with hematocolpos or primary amenorrhoea and any associated myriad symptoms. Therefore, prompt diagnosis and appropriate surgical management are essential. The possibility of restenosis, endometriosis, and implications for fertility must be well explained to patients. There is still a requirement for an all-encompassing classification system, as well as specific treatment guidelines based on the same, which may make it possible to assimilate more data globally.

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