

## Case report



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## Management of transverse septum in a low resource setting: a case report

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## Abstract

*Transverse vaginal septum is a rare female genital tract anomaly which may occur exclusive of any concomitant anomalies. We report the case of a premenarcheal girl who presented at our resource constrained center with primary amenorrhoea and cyclic abdominal pain. We performed a resection of the transverse vaginal septum and followed it up with the introduction of a Foley catheter in the vagina. After 4 weeks of discharge, no septal closure was present, and the menstrual flow was normal.*

## Introduction

Transverse vaginal septae are a rare type of müllerian anomaly. The incidence though largely unknown is however said to be between 1/2100 and 1/7200 [1]. They typically may result from either incomplete canalization of the vaginal plate or failure of the paramesonephric ducts to meet the urogenital sinus [2]. Septae may be complete or incomplete and the obstruction may be at any point in the vaginal canal. It may be a high, middle or low vaginal septum [3]. A transverse vaginal septum occurring adjacent to the cervix may be so thick as to prevent a large portion of the vagina from developing, resulting in a congenital absence of the vagina with a uterus present. Prepubertal diagnosis of imperforate septae may be difficult except there is a huge mucocolpos. In adolescence, the presentation may be with cyclical abdominal pain, hematocolpos and haematometra. Women with perforate septum may menstruate but have difficulty with intercourse. The diagnosis is usually made on clinical examination with confirmation done using ultrasound and MRI. The septum is usually removed surgically with anastomosis of the proximal and distal ends or lifting of grafts in extensive cases. The prognosis following successful resection often depends on correct diagnosis and presence or absence of concomitant morbidities. Women often do well and go on without further complications.

## Patient and observation

A 12-year-old girl sought medical treatment because of 6 month history of worsening cyclic, cramping, lower abdominal pain. She experienced thelarche at 11 years of age and had never menstruated till presentation. Her general physical examination was normal. Her breasts were Tanner stage 3 with no masses. Her external genitalia were normal. On digital vaginal examination, a 1 cm blind vaginal pouch was seen. A tender, globular, firm, smooth mass was noted in the vagina on rectal examination. On pelvic ultrasonography, echogenic fluid was seen in the uterus, cervix and vagina with a communication between the structures. There ovaries appeared normal bilaterally. Both kidneys were normal in size and location but with mild right pelvic calyceal system dilatation. On the basis of clinical examination and radiologic studies, diagnosis of imperforate transverse vaginal septum was made and decision of septum resection. An excision of the vaginal septum was done under anaesthesia and an improvised vaginal stent was left in situ. Her post-operative recovery was uneventful. The vaginal stent was removed 7 days after the surgery. She was subsequently discharged home and instructed on how to use an improvised vaginal dilator to keep the vagina patent. At follow up examination, there was mild narrowing of the lower vagina and she had not resumed normal menstruation. She was given another 2 week appointment. At her second follow up visit, she had resumed normal menses and patency of the vagina was observed on examination. She was given psychosocial support and counseling on other aspects of reproductive health.

## Discussion

This is a case of true congenital transverse vaginal septum. Its etiology is sometimes linked to autosomal recessive transmission, but in most cases, a genetic origin cannot be found [4]. The acquired variety is more common and typically develops following insertion of caustic or herbal substances to treat gynaecological conditions such

as uterine fibroids and infertility which are common conditions seen in our environment. Anomalies of the vagina particularly transverse vaginal septae are quite uncommon world-wide. There are those associated with the inter-sex state, maternal use of Thalidomide and stilbesterol and sometimes in association with anomalies such as persistent cloaca, hirschsprung disease and polydactyl [5]. A ten year audit carried out at the University of Jos Teaching Hospital in Nigeria revealed 21.4% of surgeries were done for correction of genital tract anomalies and these were in the pediatric age group 4. A retrospective review of nine neonates and infants treated in Northern Nigeria showed that missed diagnosis was a major problem since congenital vaginal obstruction was an uncommon presentation with disastrous consequences [5]. A rare case of transverse vaginal septum with congenital vesico-vaginal fistulae presenting as menouria was reported in India [6]. Cases reported in literature were quite varied in their description of anomalies and in their techniques of repair. Transverse vaginal septae with large defects in the middle were managed with dilatation alone while those presenting with hematocolpos were treated with only a cruciate incision followed by months of oral contraceptive pills before the definitive repair. In the case reported in this review there was stenosis of the low-vagina where the septum had been. Stretching of the septum has been described in literature to prevent this complication [7]. Another method suggested to prevent stenosis described the use of high pressure dilatation balloon which incorporates high intra-balloon pressures for the surgical management of transverse vaginal septae thereby limiting the postoperative narrowing of the vagina [8]. The challenge experienced in the index case was the difficulty in securing vaginal dilators which were not readily available and expensive in our environment. Improvisation using a 20 ml syringe anchored to the vulva with a stitch was done. This is less than ideal in maintaining vaginal patency and preventing post-operative stenoses.

## Conclusion

Although vaginal anomalies especially transverse vaginal septae are a rarity in our practice, early recognition of the condition along with other comorbidities is pertinent for appropriate management. A multidisciplinary approach provides for more robust care especially in low resource settings where equipment and often times appropriate tools pose a challenge to efficient patient management. Psychosocial support especially for adolescents as in the case presented cannot be over emphasized.

## Competing interests

The authors declare no competing interests.

## Authors' contributions

Rehinatu Adejumo: write up of the introduction, discussion and conclusion. Tajudeen Sanusi Akande: follow up on patient and write up on the case presentation. Yamuna kani: review and proof reading of article. Usman Nakakana: proof reading and editing of the article. All the authors have read and agreed to the final manuscript.

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