

## A CASE REPORT OF PREMENARCHIAL TRANSVERSE VAGINAL SEPTUM AT THE UNIVERSITY COLLEGE HOSPITAL, IBADAN

O. Oloyede<sup>1</sup> and G.O. Obajimi<sup>2</sup>

1. Department of Obstetrics & Gynaecology, Mother and Child Hospital, Ondo, Ondo State, Nigeria.
2. Department of Obstetrics & Gynaecology, University College Hospital, Ibadan.

*Correspondence:*

**Dr. G.O. Obajimi**

Dept. of Obstetrics & Gynaecology,  
University College Hospital,  
Ibadan

Email: gbole@yahoo.com

### ABSTRACT

**Premenarchial Transverse vaginal septum is a benign condition. The septum may be found in the upper, middle or lower vagina.**

**A case report of a premenarchial girl with transverse vaginal septum managed at the university college hospital, Ibadan, in January 2009. Diagnosis was made following a history of primary amenorrhea, cyclical low abdominal pain and pelvic examination which revealed a vaginal septum.**

**She had surgical resection of the vaginal septum and a vaginal stent was left in-situ to keep the vagina patent during the healing process. The procedure was uneventful and she was able to achieve menstrual flow following surgery. Follow up visits were essentially unremarkable.**

**Keywords:** Premenarchial, Transverse vaginal septum

### INTRODUCTION

The incidence of vaginal atresia has been estimated to be 1 in 400,000 female children.<sup>1</sup> The vagina is derived from interaction between the uterovaginal primordium and the pelvic part of the urogenital sinus.<sup>2</sup> The causes of vaginal anomalies are difficult to discern because of the controversial subject of the integration of the uterovaginal primordium and the urogenital sinus in the normal differentiation of the vagina.

Anomalies of the vagina may be obvious at birth or present following menarche as cryptomenorrhoea, dyspareunia or labor dystocia. Rarely at birth may an imperforate hymen cause a mucocolpos which is due to retained vaginal and uterine secretions. They may present with an abdominal mass with bulging hymen at birth. In the post menarcheal period an imperforate hymen would lead to cryptomenorrhoea.<sup>2</sup>

Histology of most transverse vaginal septum reveals both surfaces to be lined by stratified squamous epithelium. This supports the theory that the mullerian epithelium is replaced by a permanent epithelium. This cord of stratified epithelium invaginates into the primordial vagina. A failure of the process leaves behind vestigial shreds, causing these vaginal septa to appear at different levels of the vagina.

There are different views as to the origin of this epithelium; endoderm of the urogenital sinus, mesoderm of the wolffian ducts or ectoderm of the cloacal membrane. These views may partially explain

the variety of epithelia lining the septa.<sup>3</sup> Also classification of the causes of these anomalies would include potential moderating factors of endocrine and genetic origins. There are those associated with the inter-sex state and the maternal use of Thalidomide and stilbesterol. Abnormalities specific to the vagina include failure of canalization with a resultant partial or complete agenesis, transverse or longitudinal septa and persistence of the urogenital membrane resulting in an imperforate hymen.<sup>1,3</sup>

Congenital transverse vaginal band or partial vaginal atresia would also present with cyclical monthly pelvic or rectal pain with no bleeding per vagina. With continued retention of menstrum, there would be palpable pelvic masses which could be a haematocolpos, haematometrium or haematosalpinx. Patients with complete vaginal agenesis would present with absence of an opening between the urethra and rectum.

### CASE REPORT

A case report of a 13year old girl who presented with primary amenorrhea with established normal secondary sexual characteristics. She had sought medical attention when she started experiencing cyclical low abdominal pain. Examination revealed a transverse vaginal septum about 1cm thick in the mid- vagina and a capacious lower vagina. An abdomino-pelvic ultrasound revealed a normal uterus and cervix with

minimal haematometrium and haematocolpos. There were no urinary tract anomalies.

An excision of the vaginal septum was done and a cervical catheter and a vaginal stent were left in situ. Her post-operative recovery was uneventful. The vaginal stent and cervical catheter were removed 14 days after the surgery.

She was subsequently discharged home and instructed on how to use a vaginal dilator to keep the vagina patent. This was done satisfactorily. At follow up examination, there was mild narrowing of the mid-vagina which was inconsequential. She had however resumed normal menstruation and had no other complaint. Psychosocial support and counseling were provided along with reproductive health awareness.

## DISCUSSION

This case report is that of true congenital transverse vaginal septum. Available evidence confirms the preponderance of the acquired variety over the congenital type. In the acquired variety, septae develops following insertion of caustic or herbal substances to treat gynaecological conditions such as uterine fibroids and infertility which coincidentally are common in women in our environment.

Anomalies of the vagina particularly transverse vaginal septae are quite uncommon worldwide. 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.<sup>4</sup> 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.<sup>5</sup> Transverse vaginal septum may also present with associated anomalies such as persistent cloaca, hirschsprung disease and polydactyl.<sup>5</sup>

A rare case of transverse vaginal septum with congenital vesico-vaginal fistulae presenting as menouria was reported in India.<sup>6</sup> Literature review suggests that the most common presenting symptoms were those related to an abdominal mass, abnormal menstruation and the urinary system.<sup>7</sup>

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 haematocolpos 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 mid- vagina where the septum had been. Stretching of the septum has been described in literature to prevent this complication<sup>7</sup>. 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 post-operative narrowing of the vagina.<sup>8</sup>

The challenge experienced in the index case was the difficulty in securing vaginal dilators which were not readily available. 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.

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