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Original Research Paper

Gynaecology

A CASE OF PRIMARY AMENORRHOEA WITH TRANSVERSE VAGINAL SEPTUM

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ABSTRACT The transverse vaginal septum is a congenital anomaly of female genital tract. It usually remains unnoticed until adolescence or young age. The patient usually presents with primary amenorrhoea with normal secondary sexual characteristics. This is usually diagnosed with combination of clinical examination, ultrasound and MRI. Treatment includes resection of vaginal septum with dilatation of vagina to prevent restenosis. We present a case of Primary Amenorrhoea with transverse Vaginal Septum.

KEYWORDS : Transverse vaginal septum, primary amenorrhoea, resection.

INTRODUCTION:

Transverse vaginal septum is a sporadic cause of developmental abnormality of the female genital tract, which can lead to Primary Amenorrhoea. It is a defect of vertical fusion during embryogenesis of vagina.

The incidence of transverse vaginal septum is about 1 in 30-40,000 to 1 in 80,000.[3,4] The septum can be at any level in vaginal. Most commonly it is seen in upper vagina 46% , in the middle part the percentage is 35-40% and in the lower part of vagina its percentage is 15-20%.[3]

The septum can be complete or partial. The presentation of patients varies with complete or partial septum. With complete septum, a patient may present with cyclical abdominal pain, tender mass in suprapubic region. With partial septum, the presentation of the patient is partial outlet of menstrual blood and dysmenorrhoea. MRI plays an important role in distinguishing the vaginal septum from imperforate hymen which is a common cause of amenorrhoea.

CASE:

A 16-year-old unmarried girl, came to OPD of MGM Hospital, with complaints of cyclical abdominal pain for 2-3 years. The pain was intermittent, localised to suprapubic region and occurred every month lasting for 3-5 days. The patient's menarche was not attained yet. Patient was thin built and averagely nourished, with Body Mass Index (BMI) of 16/sqm^2. Breast examination suggested Tanners' stage III of development.

Abdominal examination revealed – a tender suprapubic midline lump of 18weeks size. Its consistency was smooth and regular. Gross examination of the genital area revealed normal findings with stage III distribution of pubic hair.

Urethral and Anal openings were found to be normal. Her bowel and bladder habits were normal.

Instead of vaginal opening, a vaginal dimple was noticed. There was no bulging of hymen. On rectal examination, there was bulging of upper vagina towards the rectum.

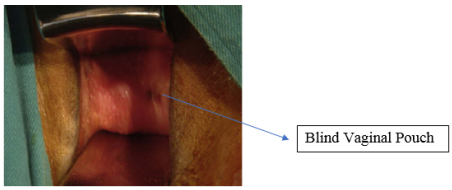

Fig 1: transverse vaginal septum seen on perineal examination

Ultrasound of abdomen and pelvis revealed: -

i. Sonolucent collection within the upper vagina extending into the endometrial cavity.
ii. Internal echoes were noted within the collection.
iii. Both ovaries were visualised and were found to be normal.

MRI of the pelvis confirmed marked collection of fluid in the upper 2/3rd of vagina with lower end of the collection stopping at 2.5cm proximal to external urethral orifice. A low transverse vaginal septum was noted with thickness of 2cm. Hematometra and Hematosalphinx were noted.

The cervix, ovaries, rectum and bladder were normal.

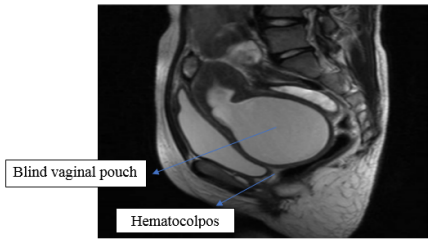

Fig 2: MRI Image Of The Pelvis Showing Hyperintense Collection In The Endometrium, Upper 2/3rd Of Vagina And Thick Septum Separating Upper 2/3 Rd Of Vagina From Lower 1/3rd.

The patient was diagnosed as a case of Transverse vaginal septum and was planned for resection of vaginal septum based on clinical finding and imaging.

MANAGEMENT:

Consents were taken, risks and complications like stenosis, need for re surgery, excessive bleeding, were explained. Under USG guidance after ensuring the thickness of the septum with a needle, a small transverse incision was given over the septum and collected hemorrhagic fluid was drained (Figure 3).

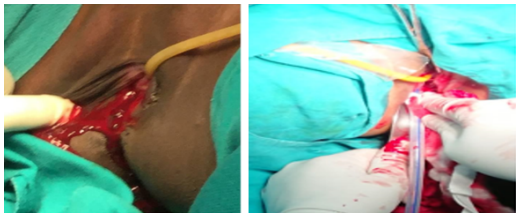

Fig:3 Drainage of collected haemorrhagic fluid & Insertion of Foleys catheter in the vagina to maintain the patency.

The septum then was excised circumferentially keeping a catheter in the bladder and a Hegar's dilator in the rectum as a guide to prevent inadvertent injury to these organs. A Foleys catheter was kept in the vaginal canal so as to maintain the patency of the tract. (Fig:). Post op MRI done after 2 weeks, revealed total disappearance of collection and normal uterus and vagina She is presently under follow up and started normal menstrual flow exactly after one month of the last cyclical pelvic pain. Vaginal tract is patent.

DISCUSSION:

Transverse vaginal septum results when the vaginal plate, formed by the fusion of Sino-vaginal bulbs, fails to breakdown or canalize during embryogenesis.

Girls with transverse vaginal septum present at or soon after the age of expected menarche with complaints of cyclical abdominal pain due to obstruction to the menstrual flow. They have symmetrical and appropriate secondary sexual characters according to the age.

The diagnosis is usually confirmed by USG or MRI. USG of the pelvis is usually done to know the extent of hematocolpos and associated hematometra.

MRI is usually superior to USG in determining the depth and thickness of septum as it provides better anatomical details and more clear definition of length of the atretic segments between the lower and upper vagina.[7,8] This information is essential for surgery.

In the cases of low transverse vaginal septum there is possibility of misdiagnosis with imperforate hymen. The incidence of imperforate hymen is 1 in 1000 to 2000 cases. It presents with complaints similar to transverse vaginal septum. Additionally, they may also have retention of urine due to compression of urethra and bladder by a grossly distended lower vagina. The genital system examination reveals, no vaginal orifice and a thin, bulging perineal membrane at the lower limit of the palpable mass (hematocolpos). Imperforate hymen was ruled out as diagnosis since our patient did not have bulging perineal membrane and had vaginal dimple.

The other differential diagnosis can be Mayer-Rokitansky-Kuster-Hauser syndrome (MRKHS). It occurs due to failure of Mullerian development. Patients with Mullerian agenesis usually present with primary amenorrhoea in the late adolescence or young adulthood. They have normal, asymmetrical breasts and pubic hair development and have no signs and symptoms of cryptomenorrhea because the rudimentary uterus does not contain functional endometrium. It was ruled out in our case as our patient had symptoms of cryptomenorrhea unlike MRKHS where cryptomenorrhea is absent due to absence of uterus and vagina.

Treatment of transverse vaginal septum is surgical. It involves excision of the septum.

Several approaches have been described, including simple dilation of an incomplete septum, resection with or without laparoscopic guidance, and drainage for symptomatic relief, with progressive dilation and later resection.[6.]

In cases of thick septa, a split-thickness skin graft can be interposed into the large defect to prevent excessive vaginal shortening. If the patient is not sexually active, vaginal dilation may be necessary to maintain established patency.[5]

CONCLUSION:

- Primary Amenorrhea has got multifactorial etiology.
- For the patient with primary amenorrhea, the physical examination should focus on pubertal development and possible genital outflow obstruction which was most common finding in our case.
- Müllerian agenesis, is a congenital malformation of the genital tract it is the second most common cause of primary amenorrhea and the most common cause of primary amenorrhea is Imperforate Hymen.
- Resection of vaginal septum will help restore a patent outflow tract and may preserve fertility in some cases.

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