CASE REPORT

LOW TRANSVERSE VAGINAL SEPTUM: AN ABERRANT CAUSE OF HEMATOMETROCOLPOS WITH ATYPICAL PRESENTATION. A CASE REPORT

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ABSTRACT

Transverse vaginal septum, rare defect of mullerian duct is a congenital anomaly of female genital tract resulting in abnormal collection of menstrual blood in vagina and uterus i.e. hematometrocolpos. Septum may lie at any level in vagina but most commonly lies at uper1/3rd 46% and least likely in lower 1/3rd of vagina i.e. 14%. Mostly patients present with primary amenorrhoea, cyclical abdominal pain and some time abdominal mass and therefore easily diagnosed but problem arises when patient present with atypical symptoms like urine retention, constipation and leg pain. Here we report a case of 15 years old girl who presented in emergency department with acute retention of urine for seven hours. Ultrasound Pelvis showed huge cystic mass in pelvis and MRI pelvis showed distended uterus and vagina. So hematometrocolpos was diagnosed, examination under anaesthesia revealed thick vaginal septum1cm away from introitus, no bulging in hymen was noted. Septum was surgically resected and 2.5liters (2500ml) chocolate coloured fluid was drained.

KEYWORDS: Hematomatrocolpos, transverse vaginal septum, imperforate hymens

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INTRODUCTION

Hematometrocolpos is a collection of menstrual blood in uterus and vagina resulting from the obstruction of out flow tract of female reproductive system. Congenital causes include imperforate hymen, vaginal septum, and vaginal agenesis. The most common cause is imperforate hymen which has an incidence of 1/1000 women. Vaginal septum is an anomaly of mullerian duct which results from the failure of fusion and canalization of mullerian duct with urogenital sinus. Clinically it is present between upper one third and lower one third of vagina while imperforate hymen is present between labia across the vestibule. According to Lodi's series' commonest site of septum is upper 1/3rd of vagina, which is 46% then middle 1/3rd i.e. 40% and least common site is lower vagina which is 14% [1]. In this case the cause of hematometrocolpos is lower vaginal septum.

CASE REPORT

This is the case of 15 years old girl who was referred from emergency department to gynaecology OPD. She presented in ER with retention of urine for seven hours. She had history of severe pain in legs and constipation for one week.She was taken to local clinic where symptomatic treatment was given. Though she had not yet started menstruation (primary amenorrhoea) but was not investigated because of history of delayed menarche in mother. She developed gradual abdominal distention but never had lower abdominal cyclical pain so this was thought to be due to weight gain . On examination she had BMI of 22kg/m^2, secondary sexual characteristics were well developed. On per abdomen examination abdomen was non tender,

distended with a huge mass of about 28-30cm, which was firm in consistency, smooth with well-defined margin, and non-reducible, Per vaginal examination not done as she was unmarried. Per rectal examination was done which showed remarkable bulge in rectum.

Figure 1: Grossly Distended abdomen with huge mass

Ultrasound pelvis showed huge cystic mass measuring 21.2x11.5cm. MRI pelvis full study was done in which uterus cervix and vagina were grossly distended with fluid, reaching to the mid of upper abdomen and measuring 32x8.3x13cm. Findings were consistent with hematometrocolpos.

Both ovaries appear normal as well as both kidneys. All rest is normal.

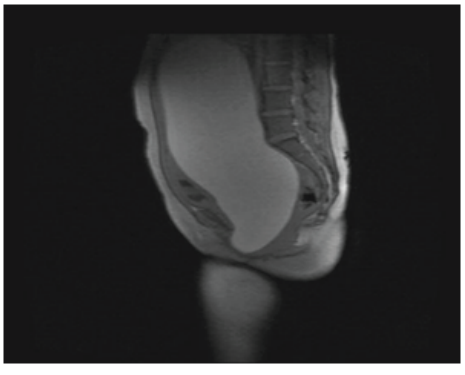

Figure 2: MRI Showing distended uterus, cervix and vagina

Attendant were counseled about the diagnosis and patient was examined under anaesthesia on same day. Vulva was normal, pubic hair distribution was compatible with age, no bulging of hymen was noted but a thick septum was felt in vagina about 1 cm away from introitus (vaginal opening). A cruciate incision was given and a hole was made in septum through which about 2.5litres chocolate colored fluid was drained. Abdominal distention was seen reducing which finally disappeared. Firm cervix was felt on examining through the hole behind the septum.

Stitches were applied at1, 3 and 9 o'clock position of vagina and hole was secured for subsequent menstruation. Patient was discharged and followed in OPD week later and then after next menses. She was doing good

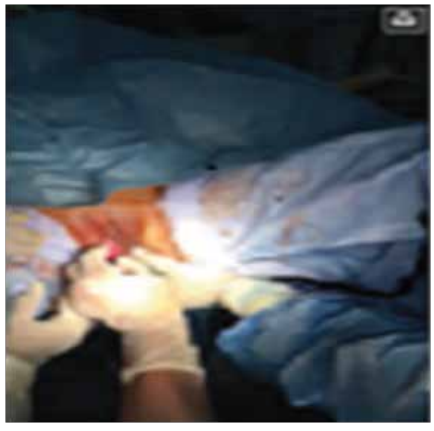

Figure 3: EUA No bulging but septum was noted

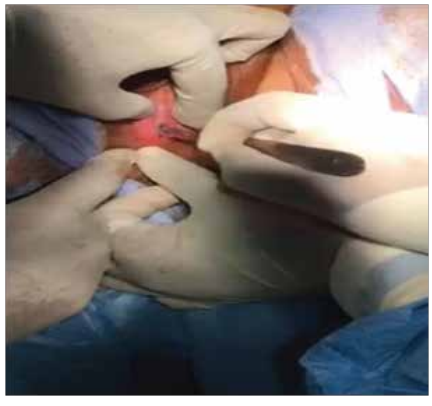

Figure 4: Cruciate incision was given

DISSCUSSION

The Transverse vaginal septum, a rare mullerian duct anomaly is a congenital defect of female reproductive tract which results from the abnormalities in the fusion or cannalization of urogenital sinus and vaginal component of mullerian duct.[1] The incidence is reported to be 1in 50,000 -70,000 females.[2] For the very first time it was described by Delaunay in1877.[3]

Septum may be present at any level in the vagina but the most common site is upper and mid vagina.[4] In one large study by Lodi in 1951 reported incidence of septum in upper vagina was 46%, in the middle vagina 40% and 14% in the lower vagina.

Clinical presentation depends on whether the septum is complete or partial. Complete septa results in collection of blood above the septa and distends the structure above it in form of haematocolpos and haematometra.Besides the transverse vaginal septum other differentials include vaginal agenesis, cervical dysgenesis and imperforate

hymen. Among these, imperforate hymen is found to be the commonest anomaly of female reproductive tract with reported incidence of 1in1000 women. [5, 6].

The etiology is not known but it may be the result of genetic mutation, developmental arrest and exposure to certain hormones (diethylstilbestrol) during the critical stage of embryogenesis.

Typically these patients come in OPD with primary amenorrhea and cyclical abdominal pain.

Timing of presentation depends on location of septa. Transverse septum in lower vagina results in huge distension and late presentation as in this case in which 2.5 liters of old blood was Drained.[8] A Girl in this case came in emergency department with acute retention of urine which is said to be present in up to 50% of cases of haematometrocolpos but even then it was missed by attending physician and was referred to gynae OPD for evaluation of pelvic mass [9-11].It is the mechanical compression of urethra and bladder by huge haematocolpos that causes urine retention.

Imperforate hymen and low transverse vaginal septum are closely related to each other and some time it is difficult to differentiate the two but it's the site and histology on which basis they are differentiated. Hymen is a membrane present between the labia across the vaginal vestibule along the posterior border of introitus while vaginal septum composed of fibrous and muscular component lies at some distance from vaginal introitus, i.e. it lies within vagina, in this case it is 1cm away from introitus. On examination imperforate hymen is seen as pinkish bulging while in case of septum usually bulging is not seen outside the introitus. Hematometrocolpos due to low transverse vaginal septum is associated with endometriosis and subfertility

CONCLUSION

Low transverse septum is the most infrequent cause of hematometrocolpos.Sometime patients have atypical presentation with constipation, leg pain and urine retention as in this case diagnosis may be missed especially if patient did not complain of primary amenorrhoea due to delayed menarche infamily.The result is the huge collection of blood and may result in endometriosis and subfertility. Therefore general physicians attending young girls due to urine retention must keep hematometrocolpos secondary to low transverse vaginal septum in their differentials.MRI helps in making definite diagnosis.

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