IMPERFORATE HYMEN
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Abstract:

Imperforate hymen is a rare congenital anomaly of the vagina generally presented with symptoms in pubertal girls. A case of 13 year old girl with an imperforate hymen is reported here. She presented with cyclical lower abdominal pain and a suprapubic mass. Perineal examination is diagnostic and confirmed by ultrasound pelvis and abdomen. After reassurance and counselling a hymenectomy was performed. The prognosis is good with surgical intervention. A follow up of 4-6 weeks showed no recurrence.

Key Word:

Vaginal anomaly, imperforate hymen, pelvic ultrasound, hymenectomy.

Introduction

Imperforate hymen is a rare vaginal anomaly in which a layer of epithelialized connective tissue that forms the hymen has no opening, thus obstruct the vaginal introitus1. Among the obstructive anomalies of female genital tract, congenital imperforate hymen is the most common. The frequency in newborn females is 0.1%2. It can be acquired by sexual abuse3, though familial occurrence has also been reported4. The pediatrician can diagnose the condition at birth, but most often an adolescent girl presents with primary amenorrhea and recurrent pelvic pain. Sometimes the patient complains of urinary retention5. On vulval inspection, the diagnostic feature is a dome shape, purplish red hymenal membrane, bulging outward. On rectal examination haematocolpos will be palpable within the pelvis. Careful physical examination combined with ultrasound of the pelvis and abdomen is usually sufficient for the diagnosis. The differential diagnosis includes complete vaginal agenesis and duplication of the uterovaginal tract. Effective counselling of the patient and family should be done. Management is by surgical intervention, hymenectomy and marsupialization of the edges to the vaginal wall. The prognosis is good and follow up visits should be performed. We report a case of imperforate hymen in a young girl who had hymenectomy.

Case Report

A 13 year old girl presented to our out patient clinic with a history of cyclical lower abdominal pain and a suprapubic mass for 2 months. She also complained of low grade, intermittent fever, frequency of urination and dysuria for a week. Patient stated that she had never been sexually active, nor difficulty in bowel movements. She had symptomatic treatment but with no improvement. Her periods had still not started. Her 2 elder and 1 younger sister had normal menstrual cycle. Her past medical surgical and drug history was unremarkable.

Her mother had suffered a stroke but rest of family members were in good health. She is an intelligent, co-operative anxious girl of moderate built with normal vitals. Secondary sexual characteristic are well developed. On abdominal examination a mass was palpable in hypogastrium and left iliac fossa about 10x9 cm. It was smooth firm, tender, non mobile with no ascites. There was no palpable lymphadenopathy in groin,
axilla or elsewhere. Perineal examination revealed an imperforate hymen which was bluish, bulging vascular protruding from the introitus. On initial ultrasound of pelvis and abdomen, vagina and uterus was dilated with fluid. These were suggestive of haemocolpos & haematometra. The hemoglobin was 11 gram per deciliter, total white blood cell count was 8190 per cubic millimeter with 59% neutrophils, 35% lymphocytes and 4% eosinophils. Urine analysis was normal. The erythrocyte sedimentation was 15 mm in first hour. The ultrasound revealed no urinary tract anomalies. The patient and her family were counselled for the surgical intervention. Hymenectomy is the procedure of choice. The risks and benefits of the procedure were explained and informed consent was obtained. Hymenectomy was performed by cruciate incision at 2, 4, 8 and 10 O'clock position avoiding injury to the urethra - vaginal epithelium is sutured to the hymenal orifice using interrupted stitches with five absorbable suture (4-0 Polyglycolic suture). Post-operative analgesia, lignocaine jelly was applied to the suture line. During Hymenectomy 450 cc of brownish blood was drained from the vagina and uterus. Non-steroidal anti-inflammatory drugs were prescribed. The patient and family were counselled that dark color, thick, clotted blood would drain from the vagina for several days. She was instructed to report to the doctor if severe cramping pain was unresolved by taking medicine. Bathing was allowed. She was informed that the sutures will absorb. The first follow up visit was done after 7 days. She complained of a slight brownish discharge but the pain had subsided. On the subsequent visit, on the 14 post-operative day there were no symptom. Her vulva inspection revealed no signs of inflammation or complaints. At the same visit she was counselled to take oral contraceptives for 4 to 6 months so that menstruation would be suppressed.

**Discussion:**

The hymen is a mucous membrane at the junction of sinovaginal bulbs with urogenital sinus. It is composed of endoderm derived from urogenital sinus epithelium. It is perforated during embryonic life and usually torn during coitus1. Hymen is imperforate if there are no perforation through this membrane.

Imperforate hymen is an uncommon vaginal anomaly usually presenting at 13 to 15 years of age. This is consistent with our present case report. Mostly patients consult a gynaecologist when symptoms appear and menstruation does not commence. For the initial one or two cycle blood accumulates in vagina, as it distends it causes slight discomfort & pain. It is called haematocolpos5. With more blood accumulation, the uterine cavity becomes distended with blood, (haematometra). In extreme conditions there is retrograde flow into fallopian tube (haematosalpinx). Adhesions may occur in fallopian tube which prevents flow in peritoneal cavity otherwise it causes endometriosis and haemoperitoneum. In our case initial symptoms were cyclical lower abdominal pain, discomfort in pelvis, backache and lower abdominal mass. These were followed by urgency, frequency and low grade intermittent fever. This is consistent with symptoms reported in literature although fever is an unusual presentation. Some may present in an emergency with urinary retention5. This was not observed in our patient.

Reported familial cases of imperforate hymen Lim7. Family screening did not reveal any evidence of imperforate hymen
in our case. A bulging hymen on perineal examination is suggestive of imperforate hymen. In our patient along with imperforate hymen she had supra pubic mass. Imaging studies, ultrasound of pelvis and abdomen are specific to confirm the clinical diagnosis of haematocolpos and haematometra.

Magnetic Resonance Imaging is an excellent adjuvant diagnostic tool. It provides the precise anatomy of the obstructive lesion in a pubertal girl. As it is expensive and ultrasound pelvis confirmed the diagnosis so it was not performed in our patient. Secondary endometriosis was not obviously present in our patient.

Associated urinary tract anomalies and combined anomalies should be properly investigated before surgical intervention. Treatment is hymenectomy which drained the collected blood & alleviate the symptoms of the patient. Care should be taken to incise the hymenal ring to prevent recurrence. In addition, a complication of hymenectomy is dyspareunia if excess hymen tissue is excised, causing scarring and stenosis of the vagina. Uterine perforation is another risk, so intrauterine instrumentation should be avoided. Occasionally laparoscopy or even laparotomy are indicated if intra abdominal extention or pathology is suspected. Prognosis is excellent. Recurrence is reported in few case.

Rock et al. reported pregnancies in patients on whom hymenectomy had been performed. Infertility may occur rarely due to endometriosis caused by retrograde blood flow and adhesion.

CONCLUSION:

With increasing awareness of the public about sexuality and sexual health, patients having obstructive vaginal anomaly should be thoroughly investigated with a high index of suspicion and treated early.

Surgical intervention is the ideal modality of treatment. The diagnosis demands a proper history and physical examination. Pelvic ultrasound is a very useful additional tool. Patients should be followed up after hymenectomy to detect recurrence and other complications.

REFERENCES:


SHORT COMMUNICATION

Therapeutic Tumour Lysis (degeneration)

THE autonomous growth of malignant tumorous outgrow its blood supply and causes central degeneration of the tumour, but it is not enough to eradicate it. The measures taken to accelerate tumour degeneration (lysis) can be used to wipe out the tumour.

Chemotherapy partially disintegrates tumour cells, but it is all temporary, any process which liquefies tumour cells by proteolytic substances can start a chain reaction of degeneration. It is manifested by fever, malaise and shrinkage of tumours.

According to Cone’s theory (1988) accumulation of lactic acid in the center of tumours is deleterious. This can be achieved by following certain dietary regime for example acts in two phases by recurring bioflavinoid quercetin. Fifty (50) percent or more of solid tumour are under the category by manipulating metabolic pathway thus affecting tumour lysis. However, when cell incurs damages, viz., exposure to ionizing radiation, toxic agents like p53 gene allowing cell degeneration. Oxygen deficit can be induced in interfering angioplasis.

Anti-angiogenic drug like the thalodimide and shark cartilege extract show in chain reaction of tumour lysis. My personal experience of injecting liver tumour produce intra-tumour injection of concentrated saline. This can introduce a new avenue for cancer therapy in future, especially in an inoperable cancer at delicate sites.

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