

CASE REPORT

HUGE ABDOMINAL MASS WITH HEMATOCOLPOMETRA DUE TO IMPERFORATE HYMEN: AN UNUSUAL CLINICAL PRESENTATION

Basant Sharma^{1,*}, Bandana Khanal¹, Prekshya Singh¹, Renuka Tamrakar¹

¹Department of Obstetrics and Gynecology, Chitwan Medical College, Bharatpur-10, Nepal

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***Correspondence to:** Basant Sharma, Department of Obstetrics and Gynecology, Chitwan Medical College, Bharatpur-10, Nepal.

Email: sharma.basant@cmc.edu.np

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ABSTRACT

The imperforated hymen is one of the commonest genital tract malformations usually present with cyclic abdominal pain and an obstructive pelvic mass at post-pubertal age. The unusual presentations are delayed menarche with obstructive symptoms rarely acute retention of urine, tenesmus, and constipation. We report an unusual case of 12-year old girl with a huge mass in the lower abdomen examination revealed imperforate hymen at early pubertal age.

Further investigation of Magnetic Resonance Imaging (MRI) confirmed hematocolpometra. Then, she underwent simple hymenotomy and drainage of collected menstrual blood from the genital tract. She recovered well during the postoperative periods. We conformed normal menstrual flow at her first follow-up. In conclusion, Imperforate hymen at peripubertal age with an unusual huge abdominopelvic mass concerns further imaging to assure the best outcome.

INTRODUCTION

The imperforated hymen is one of the common obstructive congenital anomalies of the female genital tract with a prevalence of 0.01%-0.05%.¹ It arises as a result of failure to canalize the inferior end of the vaginal plate at the junction between the urogenital sinus and the vagina. Imperforate hymen prevents the passage of blood causing accumulation of menstrual products in the vagina or uterus.

The Majority of imperforate hymen presents incidentally on physical exam in a younger age group. It is treatable and does not cause significant morbidity.² The most common age of presentation is peri-pubertal age or incidentally during the newborn period and childhood.³ Imperforate hymen usually presents with cyclical abdominal pain and delayed menstruation due to hematocolpus. Its unusual presentation is constipation, acute retention of urine, and rarely appendicitis like symptoms with hematocolpometra.⁵

The diagnosis of obstructive pathology with imperforate hymen supports by pelvic ultrasonography.⁶ The Magnetic Resonance Imaging (MRI) is a useful tool for the diagnosis, therapeutic planning, detection of complication, and follow up.⁷ Treatment

is simple, virginity preserving and socially acceptable a surgical procedure is known as hymenotomy with a cruciate or X types of incisions on an imperforate hymenal membrane to provide an annular intact hymen.⁸

CASE REPORT

A pre-pubertal girl at her 12-year referred from a primary health care center to the outpatient department of obstetrics and gynecology at Chitwan Medical College on 18 February 2020. She presented with the chief complaint of swelling in lower abdomen and cyclic per abdominal pain for the last 2 months. The swelling was spontaneous in onset, progressively increasing in size for the same duration, and was painful. She didn't attend menarche.

On examination, her vital signs were within normal limit and she was not pale. Per abdominal examination revealed a mass of 18 weeks' size globular at the suprapubic area below the umbilicus. The mass was globular in shape with a smooth and regular surface, mobile side to side, and tender. The upper abdomen was soft and no enlargement of the liver and spleen. On perineal examination, there was an oval bulge centrally placed distal to the urethral opening. The bulging mass was painless

and more prominent during coughing. A clinical diagnosis of imperforated hymen with pelvic mass was made. Ultrasonology examination showed a cystic mass in the pelvis with internal echoes with 10.1 x 9 cm in size (Figure 1).

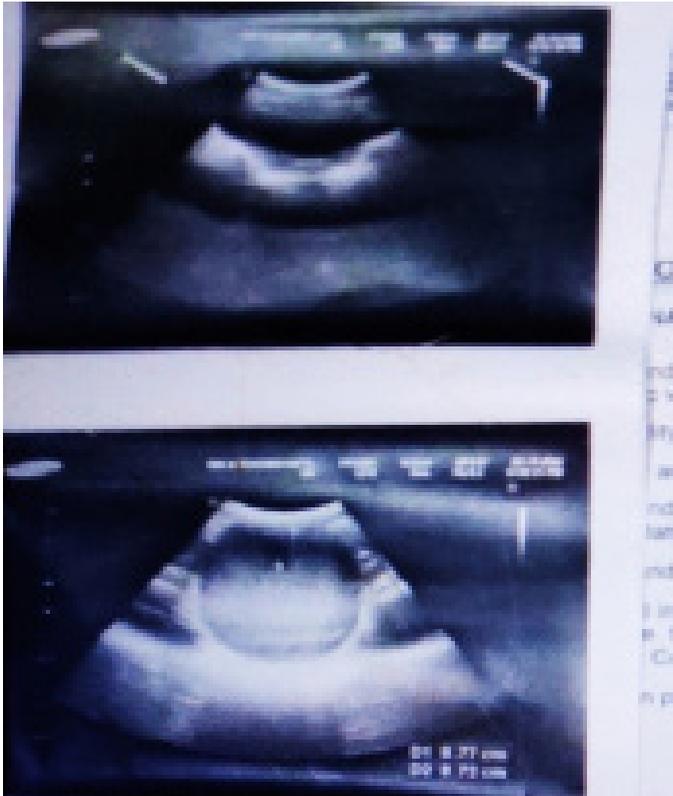


Figure 1: Ultrasonography image showing cystic mass 10.1 x 9 cm size with internal echoes

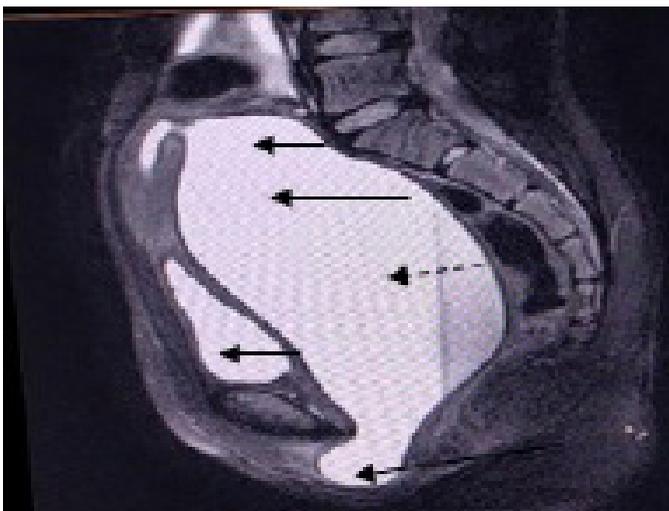


Figure 2: MRI of sagittal midline T1-TSE image demonstrating the gross distension of middle compartment structures, they are: arrow upper 1st, Uterus; middle 2nd, Cervix; lower 3rd, Vaginal canal; lowest 4th, Vaginal canal up to hymen; anterior, urinary bladder.

MRI revealed a large cystic lesion at a region of the vaginal canal extending to the uterine cavity and fallopian tubes suggestive of haematometrocolpus (Figure 2). The diagnosis was

confirmed as hematocolpometra with imperforate hymen (Figure 3).



Figure 3: Images demonstrating the oval bulge of Hymen

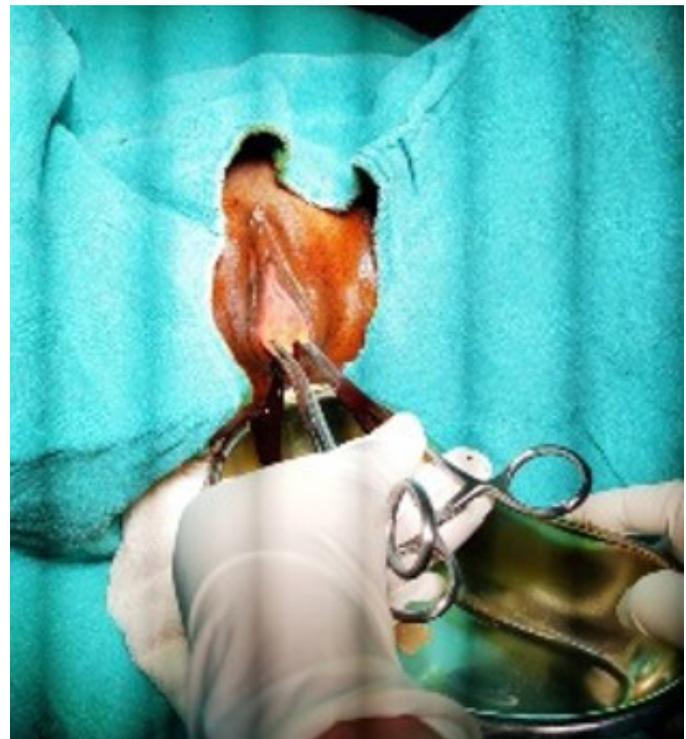


Figure 3: Images demonstrating the oval bulge of Hymen

A simple cruciate incision was given on intact hymen followed by drainage (Figure 4). About 800 ml of thick tarry color blood drained (Figure 5). We washed the vaginal canal with saline. Sutures applied at four points on the edges of the hymen. The preventive dose of intravenous antibiotics was given. Her post-operative period was uneventful and the outcome was satisfactory. We followed the patient after one month of discharge. She resumed normal menses.



Figure 5: Tarry color blood

DISCUSSION

The common presenting symptoms are cyclical pain in lower abdomen with cryptomenorrhoea associated with imperforate hymen during peripubertal age. The unusual presentation is an abdominal mass with pressure symptoms like acute retention of urine, acute abdomen with tenesmus.⁸ Imperforate hymen could be confused with other obstructive malformations

OHVIRA (obstructed hemivagina and ipsilateral renal anomaly) syndrome.⁹ So, the indication of MRI for the definite diagnosis is justified. The presented case was an unusual case that presented with huge mass with hematocolpometra associated with only cyclical pain for 2 months despite a gross collection of menstrual blood into the genital tract at prepubertal age. This case proves that clinical sign of bulge imperforated hymen is an isolated genital tract anomaly that rarely associates with other female genitourinary tract anomalies or genetic disorders.¹

The diagnosis is usually become delay due to late presenting symptoms like delayed menarche, pressure symptoms with pain and mass, and bulging hymenal membrane.² The timing of surgery is controversial. Some authorities believe that hymenotomy is simple and can be done even in newborns⁷. Virginitis is cherished by many religions, cultures, and families. Acar et al.¹⁰ advocated incision and insertion of Foleys catheter as a drain for 14 days for better preservation of the hymen and virginity, but due to the risk of ascending infection and the discomfort became unpopular. The conventional incisions cross or "X" are still effective procedures.

CONCLUSION

Huge abdominal mass with hematocolpometra due to the imperforate hymen is an unusual presentation at prepubertal age. MRI confirmed it and helped to rule out the associated genitourinary malformation and management plan. Simple hymenotomy and drainage were the treatment of choice.

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