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Case Report

Imperforate hymen: a case report

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ABSTRACT

Imperforate hymen is one of the rare causes of primary amenorrhea due to uterovaginal developmental anomaly. We report a case of imperforate hymen in a 14-year girl with primary amenorrhea who presented to us with cyclical abdominal pain, mass abdomen and dysuria. Local examination showed bulged and bluish hymen. Ultrasonography showed hematocolpos. She underwent hymenotomy through a cruciate incision and recovered well postoperatively. Hematocolpos should always be considered in a prepubertal girl who presents with primary amenorrhea, mass abdomen and urinary problems.

Keywords: Cryptomenorrhoea, Imperforate hymen, Primary amenorrhea

INTRODUCTION

Various etiologies are known to cause primary amenorrhea due to outflow tract obstruction.¹ Hematocolpos may cause urinary problems due to mechanical obstruction.² Few reports have shown the familial inheritance of this condition. Prevalence of imperforate hymen is about 0.05 to 0.1 %.³ Imperforate hymen obstructs the passage of menstrual blood and other vaginal discharges causing accumulation of fluid and blood resulting in hematocolpos and hematometra.⁴ Imperforate hymen is commonly diagnosed around puberty in adolescent girls who presents with primary amenorrhea and cyclical abdominal pain.⁵ Very rarely this may present in infancy due to fluid collection in the fetal vagina under the influence of maternal estrogen.⁶ Lack of intervention may lead to complications like infections, endometriosis, haematosalpinx and obstructive uropathy.⁷

CASE REPORT

A 14-year adolescent girl presented to gynaec OPD with complaints of cyclical lower abdominal pain for past 4 months with dysuria and mass per abdomen. There was

no history of vomiting or bowel disturbances. She had not attained menarche. On examination she was normally built with normal height and weight. Breasts, axillary hair and pubic hair showed Tanner stage IV. Thyroid was normal and no features of hirsutism were noted. She was afebrile. Her pulse, blood pressure and systemic examination were normal

On abdominal examination, mild suprapubic tenderness was noted with a palpable mass of about 16 week's size. Genital examination showed a bluish bulged hymen posterior to the urethra. Per rectal examination confirmed the mass anterior to rectum. Urine pregnancy test was negative. Urine routine analysis and urine culture were normal. Ultrasound showed normal uterus with vaginal fluid collection continuous with the uterine cavity suggestive of blood products.

MRI showed anteverted and anteflexed uterus measured 6.2×2.7×3.3 cm and endometrium measured 6.8 mm. A well circumscribed ovoid collection of 10.2×5.9×4.8 cm distending the vagina with layering of intensities noted inferiorly in the dependent parts of the collection suggestive of blood products. She underwent hymenotomy using a cruciate incision after catheterizing

the bladder and a tarry coloured collected menstrual blood was drained about 400 ml. postoperatively she recovered well and on follow up she regained regular menstruation.



Figure 1: Bulged imperforate hymen.



Figure 2: Tarry coloured collected blood after hymenotomy.

DISCUSSION

The overall incidence of imperforate hymen in women is about 1 in 2000.⁸ Imperforate hymen is due to the incomplete fusion with defect in the resorption of Mullerian septum.⁹ Most of the time it is isolated but rarely it may present with other genitourinary tract disorders.¹⁰ Imperforate hymen can also be present as a component of the McKusick-Kaufman syndrome which is characterised by congenital cardiac abnormalities, polydactyly and hydrometrocolpos.¹¹ Even though imperforate hymen is a rare condition it is easy to diagnose and treat with hymenotomy leaving annular hymen to preserve virginity.¹²

CONCLUSION

Imperforate hymen as a cause of primary amenorrhea is very rare but it is easy to diagnose and treat. In prepubertal girls presenting with primary amenorrhea and cyclical abdominal pain a high index of clinical suspicion

of imperforate hymen should be maintained and a local examination and ultrasound should always be done so that we do not miss this potentially damaging but easily treatable condition.

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