



Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/19775

DOI URL: <http://dx.doi.org/10.21474/IJAR01/19775>



RESEARCH ARTICLE

EARLY PRESENTATION OF IMPERFORATE HYMEN AT 10 YEARS OF AGE. A RARE CASE REPORT

Dr. Huma Naz¹, Dr. Tasleem Qadir², Iraj Fatima³ and Dr. Jinan Khalifa⁴

1. Specialist Registrar Obgyn, Hatta Hospital, Dubai Health & Clinical Instructor, Mohammad Bin Rashid University. United Arab Emirates.
2. Senior Specialist Registrar Obgyn, Hatta Hospital, Dubai Health & Clinical Instructor, Mohammad Bin Rashid University. United Arab Emirates.
3. 4th Year Medical Student, Dubai Medical University, United Arab Emirates.
4. Head of Department & Consultant Obgyn, Hatta Hospital, Dubai Health & Core Faculty, Mohammad Bin Rashid University. United Arab Emirates,

Manuscript Info

Manuscript History

Received: 28 August 2024

Final Accepted: 30 September 2024

Published: October 2024

Key words:-

Imperforate Hymen, Hematocolpus, Urinary Retention

Abstract

Imperforate Hymen is a rare congenital anomaly, mostly associated with Hematocolpus, Hematometra, Hematosalpinx and sometimes with other genitourinary anomalies and family inheritance has been defined as well (1). Mostly diagnosed at 12-19 years of age when menstrual blood accumulates in Vagina, Uterus and Fallopian tubes with symptoms of Urinary retention or cyclical abdominal pain. We present a case where imperforate hymen was diagnosed incidentally in work up of urinary retention as early at 10 years of age, referred from Family medicine. Hymenectomy performed and girl discharged in good condition.

Copyright, IJAR, 2024,. All rights reserved.

Introduction:-

This is the case study of a 10-year-old child who was presented with Acute Urinary Retention and diagnosed incidentally Imperforate Hymen with Hematocolpus.

The incidence of Imperforate Hymen is 0.1% of newborn (2-3). This can be isolated due to failure of the hymen to perforate during fetal development and can be associated with other genitourinary system anomalies. Most cases of imperforate hymen are sporadic in nature; however there have been reports of familial cases, where both recessive inheritance and dominant inheritance have been shown(4). Hematocolpos is a rare condition, where the vagina is filled with menstrual blood, caused by uterovaginal pathologies such as an imperforate hymen (5). Diagnosis may occur incidentally during physical examination or following evaluations for primary amenorrhea, lower abdominal pain, or, less frequently, urinary retention (6)

Case Presentation:-

A 10-year-old girl was brought by her parents referred from General Physician with complaint of Urinary retention for gynaecological examination to exclude gynaecological causes.

Corresponding Author:- Dr. Huma Naz

Address:- Specialist Registrar Obgyn, Hatta Hospital, Dubai Health & Clinical Instructor, Mohammad Bin Rashid University. United Arab Emirates.

Child gave history of cyclical abdominal pain from 6 months and Urinary retention from 2 month Off and on.

On Examination, Tanner stage 3. Vitally stable. Per abdominal soft palpable cystic mass suprapubically. On local examination, light bluish bulging membrane, completely covering the vaginal introitus.

On Investigations, Pelvic scan showed normal urinary tract, uterus normal size with minimal free fluid in cul de sac and elongated cystic mass 9.0 x 4.5 cm with internal echoes in cervical region, with possibility of Hemocolpus. MRI Pelvis done to exclude concomitant structural anomalies in Genito-urinary tract which conclude the diagnosis of Imperforate Hymen and Hematocolpus as shown in Figure 1 and 2.



Figure 1: - Front view.



Figure 2: - Side view.

Child and parents counselled about the diagnosis and need for Surgery.

After pre-operative preparation, the Hymenectomy was performed under general anaesthesia. Intra-operative findings were thick fibrous complete Hymen with well-developed External genitalia. Thick chocolate material about 600 ml drained through cruciate incision. Postoperative recovery was smooth, and she was discharged in stable condition. She resumed regular menstrual cycles with no urinary symptoms as followed up till 6 months postoperatively.

Discussion:-

Hymen is thin membrane, which surrounds the opening of Vagina when Hymen completely covers vagina with no opening that condition called Imperforate hymen, which is a rare genital tract anomaly with an incidence of about 1 in 2000. (7)

Usually presents at adolescence 12 years onwards. In my case, it was presented earlier at 10 years while other study it presented at 12 years of age. (8)

Symptoms are cyclical lower abdominal pain, urinary retention, abdominal mass, dysuria, amenorrhea, back pain or constipation (9). In my study case, patient has cyclical abdominal pain with acute urinary retention, same as other case reported by Laasri K (10) While other case studies it presented with delayed menstruation, abdominal pain and back pain. (11)

Acute urinary retention is caused by pressure effect of accumulated menstrual blood in vagina or uterus called hematocolpus and hematometra respectively (13,14). Sometimes urinary retention leads to bilateral hydronephrosis (12).

Most patients remain asymptomatic until puberty when menarche delayed and diagnosed late with a swollen hymen with purple highlights by a simple genital examination (15).

Ultrasound and Magnetic Resonance Imaging are mainstay to confirm the diagnosis (16).

Hymenectomy with cruciform incision followed by aspiration of accumulated blood is the main treatment as performed in our case and other reported cases as well (13).

Conclusion:-

Imperforate hymen is although a rare condition but delay in diagnosis can lead to infertility in cases of Hematosalpinx and renal damage in case of Urinary retention with back flow. This can be avoided by prompt examination at birth and early referral to gynaecology.

Conflict of interests:-

The authors declare that they have no conflict of interests.

References:-

1. Lim YH, Ng SP, Jamil MA. Imperforate hymen: Report of an unusual familial occurrence. J. Obstet. Gynaecology. Res. 2003;29 No.6: 399- 401.
2. Kumar K, Waseem M. An uncommon cause of abdominal pain in an adolescent. Southern Medical Journal. 2008; 101(10):1065- 6.
3. Walsh B, Shih R. An unusual case of urinary retention in a competitive gymnast. J Emerg Med. 2006; 31: 279-81.
4. R. Sakalkale and U. Samarakkody, "Familial occurrence of imperforate hymen," Journal of Pediatric and Adolescent Gynecology, Vol. 18, no. 6, pp. 427–429, 2005.
5. E. Deligeoroglou, C. Iavazzo, C. Sofoudis, T. Kalampokas, and G. Creatsas, "Management of hematocolpos in adolescents Case Reports in Urology 3 with transverse vaginal septum," Archives of Gynaecology and Obstetrics, vol. 285, no. 4, pp. 1083–1087, 2012.
6. JW Mou, PM Tang, KW Chan, YH Tam, KH Lee. Imperforate hymen: cause of lower abdominal pain in teenage girls. Singapore Med J, 50 (2009), pp. 378-379
- 7.M. J. Lausten-Thomsen and H. Mogensen, "Hymen imperforates with atypical symptom presentation," Ugeskrift for Laeger, vol. 169, no. 6, pp. 523–524, 2007. Gynaecology, vol. 185, no. 2, pp. 338–344, 2001.
8. Posner JC, Spandorfer PR. Early detection of imperforate hymen prevents morbidity from diagnosis. Paediatrics. 2005; 115: 1008- 112.
9. Wang W, Chen MH, Yang W, Hwang DL. Imperforate hymen presenting with chronic constipation and lumbago: report of one case. Acta paediatr Taiwan. 2004; 45: 340- 2.
10. Laasri K , Harras YE, Izi Z, Marrakchi S, Fenni JE, Nafaa IE. Imperforate hymen causing hematocolpos, hematometra and acute urinary retention in an adolescent girl. [Radiology](https://www.sciencedirect.com/journal/radiology-case-reports) [HYPERLINK "https://www.sciencedirect.com/journal/radiology-case-reports" Case Reports. Volume 19, Issue 11, November 2024, Pages 4970-4973.](#)
11. Yeniel AO, Ergenoglu AM, Bayrak Z, Itil IM, Askar N. Hymen Imperforate: A Report Of Three Cases.. Turk Soc Obstet Gynecol 2011; 8: 140- 3
12. Gyimadu A, Sayal B, Guven S, Gunalp GS. Hematocolpos causing severe urinary retention in adolescent girl with imperforate hymen: An uncommon presentation. Arch Gynecol Obstet. 2009; 280: 461- 3.
13. Burgis, "Obstructive Mullerian anomalies: case report, diagnosis, and management," American Journal of Obstetrics and Gynecology 2001; **185**:338-344
14. CC Liang, SD Chang, YK Soong Long-term follow-up of women who underwent surgical correction for imperforate hymen. Arch Gynecol Obstet, 269 (2003), pp. 5-8
15. Salhan B, Omisore OT, Kumar P, and Potter J.A Rare Presentation of Imperforate Hymen: A Case Report. Hindawi Publishing Corporation. Case Reports in Urology. Volume 2013, Article ID 731019.
16. Adali E, Kurtoglu M, Yildizhan R, Kulusari A. An overlooked cause of acute urinary retention in an adolescent girl: A case report. Arch Gynecol Obstet. 2009; 279: 701- 3.