Original Research Paper

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Radiodiagnosis

CASE REPORT: A CASE OF ABSENT VAGINA WITH EVIDENCE OF TUBULAR STRUCTURE IN BILATERAL INGUINAL HERNIA.

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KEYWORDS :

INTRODUCTION

Hernia containing uterus and uterine adnexa as its content is defined as hernia uterine inguinale[1]. In the female, the counterpart structure of processus vaginalis which extends into inguinal canal is known as Nuck diverticulum. The persistence of this peritoneal opening is defined as Nuck cyst. This peritoneal sac gets obliterated by 8th gestational month. The incidence of inguinal hernia in females is 1.9%[2] Anomalies in non-obliterated canal may lead to the development of inguinal hernia. Hernia containing uterine horns is a rare entity[3]its diagnosis is often made post-operatively.

CASE REPORT

A 16-year-old female came with complaint of primary amenorrhea .On examination she had a female phenotype, normal secondary sexual characteristics .There was no similar complaint in the family. In view of primary amenorrhea, serum total testosterone, LH, FSH, thyroid profile, and estradiol were measured. All of the above hormone investigations were normal -serum total testosterone [*0.12 ng/ml (0.15 to 0.81*)], LH [*2.16 mIU/ml* (0.80 to 7.6)], and FSH [*6.04 mIU/ml* (0.7 to 11.1)] and estradiol [*50.50pg/ml* (12.5-166).

Ultrasound pelvis revealed tubular trilaminar structure noted in bilateral inguinal canal (*fig1a. 2a)* with ovaries(*fig 2b)*, tubular structure noted in right inguinal region shows linear hyperechogenecity likely endometrium. (*fig1 a, b)*

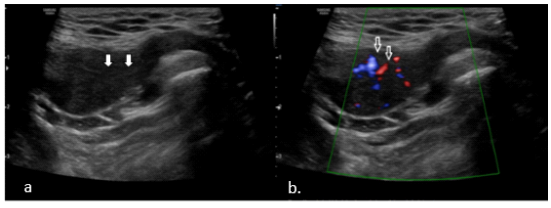

Fig.1-a.Ultrasound image of right inguinal region showing tubular structure with linear hyperechogenecity within it likely endometrium(*arrows*) b. structure showing vascularity on color Doppler.

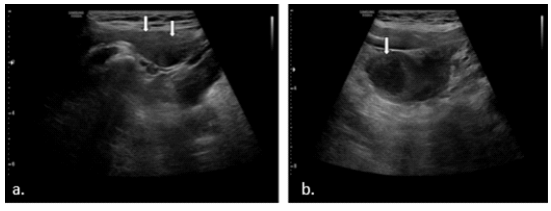

Fig.2 –a . Ultrasound image of left inguinal region showing tubular structure(*arrows) b.* right side ovary(*arrow)*

Magnetic resonance imaging of the pelvis showed upper vaginal agenesis (*fig.3a)* with absence of a normal uterus in the pelvis. The ovaries appear normal with multiple follicles (*fig.3b)*. Two well-defined tubular homogeneous soft tissue structures appearing intermediate T1 and intermediate to bright T2 signal were seen in bilateral inguinal canal (*fig4a, b)*. These structures were thought to be bilateral ovo-testes, suggesting a diagnosis of true hermaphroditism and androgen insensitivity syndrome. However, subsequent genetic analysis showed a normal 46XX karyotype.

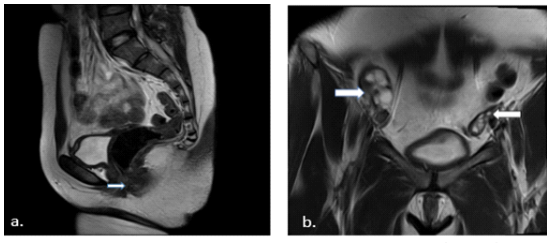

Fig.3 a. T2 weighted sagittal image showing absent uterus(*arrow) b.* T2 weighted coronal section image showing bilateral ovaries with multiple follicles(*arrows)*

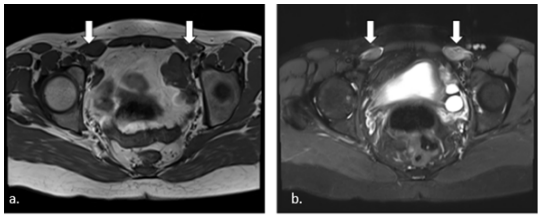

Fig.04 a. Axial T1 b. T2 weighted image showing tubular homogenous soft tissue structures with intermediate T1 and intermediate to bright T2 signal were seen in both inguinal canals(*arrows)*

Due to the atypical appearance of the uterus that can be seen with Herniated uterine inguinale, the diagnosis is usually not suggested preoperatively, HUI is a rare condition that is generally found in infants and individuals with disorders of sex development[4](previously termed as hermaphroditism and pseudo hermaphroditism), such as androgen insensitivity syndrome and persistent Mullerian duct syndrome.

An indirect inguinal hernia is the most common type of groin hernia[5], and results from the failure of embryonic closure of the deep inguinal ring and the persistence of a patent peritoneal evagination in the inguinal canal. In males, this processus vaginalis accompanies the testis as it descends into the scrotum. In females, the canal of Nuck accompanies the round ligament of the uterus; the ovaries also descend into the pelvis but do not enter the inguinal canals. If the peritoneal evagination remains patent, this is known as a patent processus vaginalis or canal of Nuck. Owing to this embryology and anatomy of the inguinal canal, HUI has often been reported in male infants with persistent Mullerian derivatives and disorders of sex development[6]. It is rare in adults and women with normal secondary sexual characteristics. In adult women, the association of HUI with lateral fusion defects of Mullerian system may be due to excess length and laxity of suspensory ligaments.

In our case patient declined to undergo surgical intervention which is already advised so our MR findings may further assist with non-invasive imaging diagnosis of future cases.

REFERENCE:

1. Chavan SG, Sharma S, Dhyanmote A,Chaudhari NC. Hernia uterine inguinale. Saudi Surg J 2016;4:84-6.
2. Read RC, White HJ. Inguinal herniation 1777-1977. Am J Surg 1978;136:651-4.
3. Kamio M, Nagata T, Yamasaki H, Yoshinaga M, Douchi T.,Inguinal hernia containing

functioning, rudimentary uterine horn and endometriosis. Obstet Gynecol 2009;113(2 Pt2):563-6.
4. Bar-Joseph KL, Amies-Oelschlager AM, Avansino JR. A painful protuberance: a young woman had primary amenorrhea and an inguinal hernia. Am J Obstet Gynecol. 2012; 207: 144.
5. Wei BP, Castles L, Stewart KA. Hydrocele of the canal of nuck.ANZ J Surg 2002;72:603-5
6. Tee LMF, Ma KF, Yeh BM, Wang ZJ (2015) Hernia Uterus Inguinale in a Young Woman with Vaginal Agenesis and Lateral Fusion Defects of the Mullerian System. Med J Obstet Gynecol 3(5): 1070.
7. Deutschman. Complete congenital absence of the vagina associated with bilateral hernias of the uterus, tubes and ovaries. NY Med J. 1923; 118: 570-571.
8. Thomson GR. Complete congenital absence of the vagina associated with bilateral herniae of uterus, tubes, and ovaries. Br J Surg. 1948;36: 99.
9. Kriplani A, Banerjee N, Aminni AC, Kucheria K, Takkar D. Hernia uterus inguinale in a 46,XX female. A case report. J Reprod Med. 2000; 45: 48-50.
10. Kokcu A, Malazgirt Z, Cetinkaya MB, Tosun M. Presence of a uterine horn and fallopian tube within an indirect hernial sac: report of a rare case. Hernia. 2010; 14: 325-327.