



RESEARCH ARTICLE

A RARE CASE REPORT OF OHVIRA SYNDROME IN AMENTALLY RETARDED GIRL

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Abstract

Obstructed Hemi vagina & Ipsilateral renal agenesis or Herlyn werner Wunderlitch syndrome is a rare Mullerian duct anomaly with uterus didelphys, Unilateral Obstructed Hemi vagina & Ipsilateral renal agenesis. Patients can usually presents soon after menarche and may show non - specific and variable symptoms with resultant delay in diagnosis. The most common presentation is dysmenorrhoea, abdominal mass in the lower abdomen secondary to hematocolpos and or haematometra. Here presenting a case of 14 years old mentally retarded female presented with pain abdomen & mass per abdomen and was diagnosed as **OHVIRA** syndrome based on Ultrasonography & MRI pelvis. She was treated with hemi vaginal septal resection and was under follow up.

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Introduction:-

OHVIRA syndrome describes a congenital malformation consisting of a uterus didelphys with obstructed hemivagina and an associated Ipsilateral renal anomaly, most likely as a result of defective fusion of the paramesonephric ducts during embryonic development.

Prevalence varies between 0.1% to 3.8%. It is generally observed in postmenarche adolescents with dysmenorrhoea, irregular menses, abdominal pain & pelvic mass. Diagnosis is often difficult due to the infrequency of the syndrome & a high index of suspicion is required.

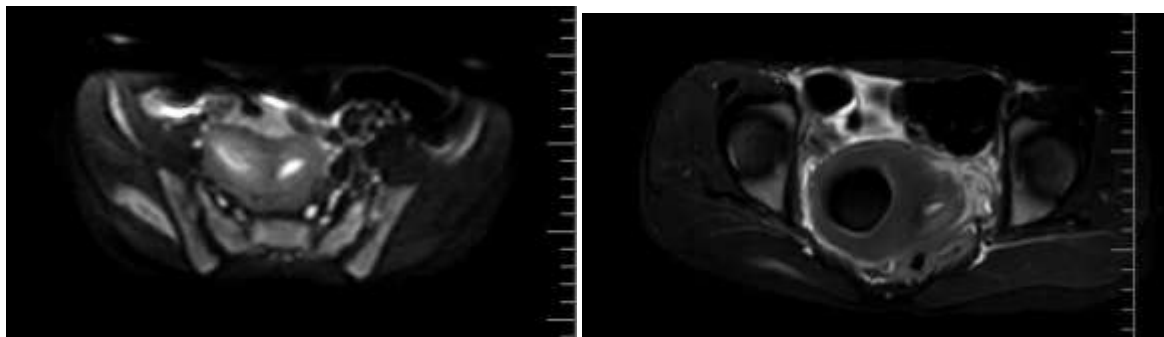
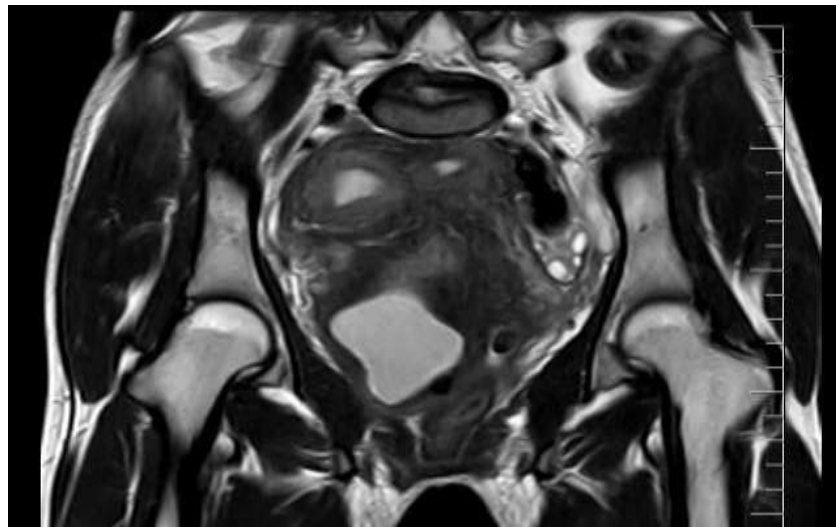
OHVIRA syndrome diagnosis requires a multimodal approach, integrating the patient's history, clinical presentation, imaging studies including ultrasonography, computed tomography, MRI & direct visualization via hysteroscopy or laparoscopy. A high index of suspicion in patients with renal anomalies & endometriosis is needed to detect the **OHVIRA** syndrome for timely diagnosis to avoid complications from the syndrome. Delay in diagnosis increases the risk of complications such as endometriosis & infertility.

Case Report:

A 14 years old mentally retarded girl presented with continuous pain in lower abdomen for the last 3 weeks. She had menarche at 13 years & a normal menstrual cycle of 5/28 days. Physical Examination revealed normal external genitalia. Clinical abdominal examination was tenderness in right iliac & suprapubic region. Hemogram & other biochemical parameters were within normal range. Ultrasound examination at outside shows:- 1) right kidney not visualised. 2) bicornuate uterus with gross hematometra & hematocolpos in left horn reaching up to level of umbilicus & right hematosalpinx. 3) mild hydronephrosis of left kidney.

Ultrasound images of OHVIRA syndrome

Transabdominal ultrasound of the pelvis at our institute revealed 2 uterine horns & uterus of size 15*9 cms & evidence of echogenic collection noted in uterine cavity which is extending into bilateral fallopian tubes (right > left) & evidence of 2.2*1.6cms collection noted at right side of uterus with thin ET ie., rudimentary horn of uterus. Right kidney not visualised ie., ectopic or agenesis & moderate hydronephrosis of left kidney:- Suggestive of bicornuate uterus with hematometra in left cornua with bilateral hematosalpinx & right ectopic/agenesis of kidney & advised MRI pelvis to rule out Mullerian anomalies. MRI done on next day revealed 2 vaginal cavities.

**MRI images of OHVIRA Syndrome**

The collapsed left hemi vagina was seen to communicate with left cervix & corresponding uterine horn.

Intraoperative image



The right hemi vagina was markedly distended, & its lower end was convex & placed 1.5cm above the introitus. The upper end communicated with the right uterine horn through the right cervix. Signal intensity of the contents of distended hemi vagina was consistent with blood products, suggestive of a right hemi – hematocolpos. Impression given was uterus didelphys with hematometra in right horn, right hematosalpinx & hemi – hematocolpos. A diagnosis of **OHVIRA** syndrome was made. Local examination under anesthesia revealed an abulge in medial wall of the patent left hemi vagina caused by the distended right hemi vagina. Patient was treated surgically by incising the septum & vaginoplasty was done. After that foley's catheter was introduced & bulb was inflated with 30 cc saline. Left cervix visualised & dilatation was done serially & surgical outcome was satisfactory with expectation of near normal fertility & normal sexual function.

Discussion:-

Mullerian duct abnormalities cover a wide range of developmental anomalies, resulting from non development or defective fusion or defects in regression of the septum during foetal development.

OHVIRA syndrome comes under type 3 mullerian duct anomaly associated with mesonephric duct anomaly. Mesonephric & paramesonephric ducts are the paired urogenital structures from which internal genital organs & lower urinary tract are derived.

Mesonephric ducts are inductor element for paramesonephric ducts. If developmental arrest of one of the mesonephric duct occurs, then the Mullerian duct on the side lacking the Wolffian duct displaces itself laterally and cannot come into direct contact with urogenital sinus with the resultant formation of an blind sac, imperforate or obstructed vagina. It is again classified into completely obstructed hemi vagina & incompletely obstructed hemi vagina. Incomplete type is again classified into 2 types i.e., 1) Blind hemi vagina 2) Cervico vaginal atresia without communicating uterus. Here it presents with complaint of dysmenorrhea & pain abdomen. On evaluation, hematometra, hematosalpinx can be found, which if untreated progresses to secondary endometriosis, pelvic adhesions, pyosalpinx, pyocolpos. In incomplete type there are 2 types i.e., 1) A small communication exists between two vaginas with resultant incomplete

obstruction. 2) Communication between two duplicated cervixes with completely obstructed hemi vagina. Here it presents with complaints of irregular bleeding per vaginum & on evaluation pelvic inflammatory disease can be found. Treatment requires surgical intervention in the form of excision of vaginal septum to relieve obstruction. Surgery also reduces the chance of pelvic endometriosis due to retrograde menstrual bleeding. Earlier hemi hysterectomy was done, now more preferred as incidence of pregnancy in both horns is almost equal. We have to make every effort to preserve the obstructed uterus.

Conclusion:-

OHVIRA syndrome is a rare anomaly with potential short & long term complications. Diagnosis likely to be missed because of normal menstruation & Non specific abdominal pain. So, early diagnosis & treatment can prevent the long term complications like pelvic endometriosis & infertility.