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Case Report

UNICORNUATE UTERUS WITH NON-COMMUNICATING RUDIMENTARY HORN AND IT'S ENDOSCOPIC MANAGEMENT- A CASE REPORT

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A R T I C L E I N F O

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A B S T R A C T

Abnormal fusion of mullerian duct or insufficient absorption of the uterine septum results in the anatomical abnormalities in the female genital system. The frequency of congenital uterine anamalies varies in fertile female population between 1/200 to 1/600. Unicornuate uterus with rudimentary horn is a very rare anamoly with a frequency of 1/100,000. These patients present with various gynaecological and obstetrical complications like dysmenorrhea, dyspareunia, chronic pelvic pain and rarely with acute abdominal symptoms following distension and torsion of the rudimentary horn. Obstetrical complications seen include abortions, ectopic pregnancy, preterm labour and rupture of rudimentary horn. The ultrasound, MRI and laparoscopy along with hysteroscopy are the important tools in diagnosing this rare anamoly. We are presenting a case of 16 year old unmarried girl who presented to us with severe progressive dysmenorrhea since menarche. Patient was initially diagnosed as bicornuate uterus on ultrasonography. However MRI confirmed the presence of unicornuate uterus with rudimentary horn we performed diagnostic/operative laparoscopy along with hysteroscopy followed by excision of the rudimentary horn.

INTRODUCTION

A malformation is a morphological defect of a body region or organ resulting from an intrinsically abnormal developmental process. Abnormal fusion of mullerian duct or insufficient absorption of the uterine septum results in the anatomical abnormalities in the female genital tract (1). Depending on incompleteness of fusion or incompleteness of resorption there are large varieties of uterine malformations. The frequency of congenital uterine malformation in fertile female population varies from 1/200 to 1/600. Unicornuate uterus with rudimentary horn is a very rare mullerian duct malformation with a frequency of 1/100,000. These patients can present with various gynaecological or obstetrical complications and the diagnosis is often difficult and delayed to the fertile period or to pregnancy. Patients may present with dysmenorrhea, dyspareunia, chronic pelvic pain, endometriosis and hematometra (2). Obstetric complications include habitual abortions, malpresentations and premature births (1). Pregnancy in the rudimentary horn can also occur with prevalence of approximately 1/76,000 to 1/150,000 pregnancies (3,4). Rupture of a rudimentary horn is a life threatening complication in pregnancy (5,6). There is a high incidence of associated malformations of upper urinary tract on the same side in about 30 to 40 percent of patients (2).

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These patients can also present with acute abdominal symptoms following distension and torsion of the rudimentary horn. We report a case of a unicornuate uterus with a non communicating rudimentary horn presenting as severe dysmenorrhea. The ultrasound misdiagnosed the condition as bicornuate uterus. Although further MRI was done which showed unicornuate uterus with rudimentary horn. Patient was managed by diagnostic/ operative laparoscopy along withhysteroscopy followed by excision of the horn.

Case Report

A sixteen year old unmarried girl with no surgical past history presented to us with a history of severe and progressive dysmenorrhea and pelvic pain from last three years. Patient had attained menarche about four years back and had been managed on oral NSAIDS along with antispasmodics. Previous ultrasonographies had revealed varied diagnosis including bicornuate uterus, left adenexal mass and unicornuate uterus with rudimentary horn. Kidneys were normal and orthotopic. MRI was done which confirmed the diagnosis of unicornuateuterus with rudimentary horn. Patient was planned for a diagnostic and operative laparoscopy and hysteroscopy.

Hysteroscopy findings were as follows

- Cervical canal normal
- Uterine cavity small with only right ostia visualized

On laparoscopy findings were

- Uterus unicornuate with broad fundus
- Uterine horn on the left side (rudimentary) was attached to the unicornuate uterus at full length. It was difficult to distinguish the plane between the two horns.
- Both tubes and ovaries were normal.

The round ligament, ovarian ligament and fallopian tube ipsilateral to the rudimentary horn were coagulated and separated. Rudimentary horn was resected. The defect in the myometrium was closed by interrupted sutures.Round ligament and ovarian ligament on the left side was reattached to the uterus. The postoperative period was uneventful and the patient was discharged next day.

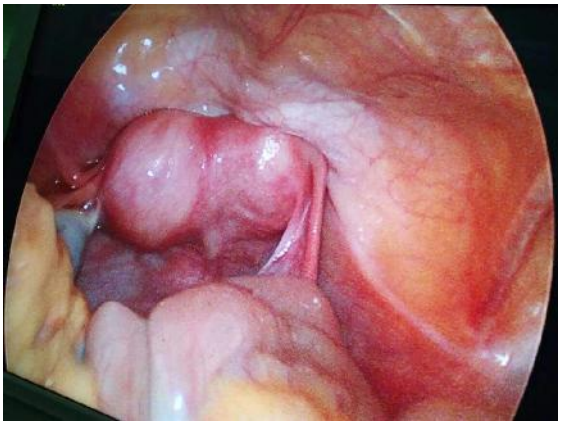

Figure 1 Unicornuate Uterus With Right Horn

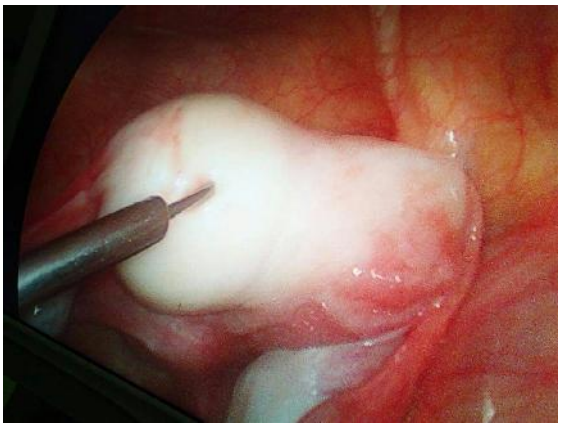

Figure 2 Injecting Vasopressin

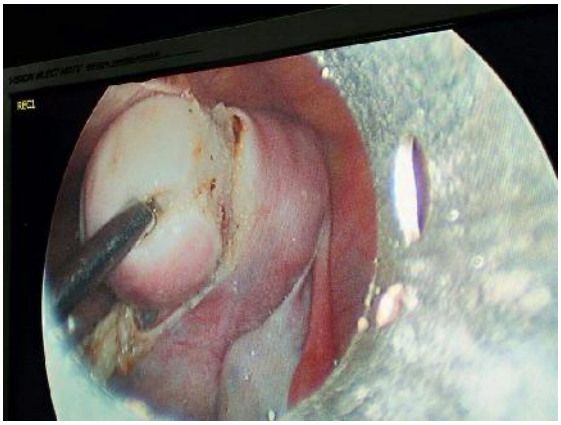

Figure 3 Excising The Horn

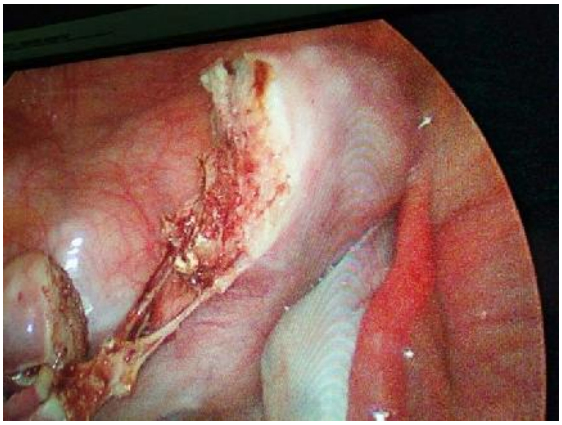

Figure 4 Horn Excised With No Communication Seen Between Two Horns

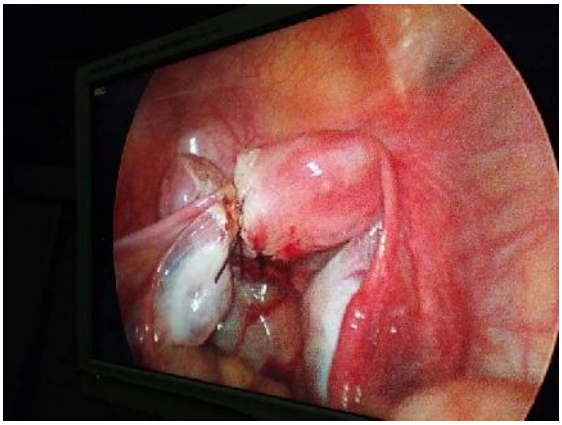

Figure 5 ovarian and round ligament joined back to the uterus

DISCUSSION

Uterine malformations have been classified by AFS/ASRM and more recently by ESHRE/ESGE. Unicornuate uterus can be with or without a rudimentary horn. These rudimentary horns can be communicating or non communicating and they can be functional or non functional. A unicornuate uterus with a non communicating rudimentary horn is a rare uterine malformation which explains why most of the gynaecologists have little experience with this condition. Because of lack of experience and incorrect interpretation of clinical and ultrasound findings, diagnosis is difficult, delayed and often found by chance when patient comes with some complication (6). As literature demonstrates early diagnosis is of great importance in order to avoid further complications (2,7,8). To get to the correct diagnosis, patients history is very important. These patients can present with dysmenorrhea, chronic pelvic pain, dyspareunia, ectopic pregnancy, infertility and even rupture horn. The cause of pain can be hematometra or endometriosis. Pregnancy can occur in rudimentary horn with a high incidence of rupture of horn because of thin myometrial tissue or abnormal implantation. The unicornuate uterus with a rudimentary horn is a rare anomaly with studies showing that upto 60 percent of cases rudimentary horn is on right side although in our case the rudimentary horn was on left side (5,9). There is no evident explanation of these findings. Usually the ipsilateral ovary is of normal function as it is not a mullerian duct origin but may be located at

extrapelviclocation (5). There is high incidence of associated urogenital malformation on the same side in 30 to 40 percent of cases (2). These patients can sometimes present with acute abdominal symptoms because of torsion and distension of horn. It is important to understand that the diagnosis and the treatment of the rudimentary horn should be carried out prior to pregnancy. Pregnancy in the rudimentary horn has been described and shows a higher incidence of abortions and the rupture of the horn.

The diagnosis is based on grey scale ultrasonography, hydrosonography, 3D USG and MRI. Hysteroscopy and laparoscopy is often able to lead to the exact diagnosis. Endoscopic management of the rudimentary horn is the main stay of treatment. A review of literature shows that the operative laparoscopy along with hysteroscopy can be used for the removal of a rudimentary horn successfully and is minimally invasive. Especially for young girls in the fertile period as in our case. The rudimentary horn must be excised before complications occur.

CONCLUSION

Young women who present with lower abdominal pain, painful cycles, adenexal masses of unknown origin we must consider the possibility of an anomaly of the mullerian duct. Early diagnosis of uterine malformation is essential to prevent complications. Preoperative evaluation is of great importance to enable adequate treatment. Operative laparoscopy along with hysteroscopy forms the main stay of treatment. Such operations should only be performed by experience surgeons with a high level of technical skill.

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