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Case Study

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MULLERIAN ANOMALY WITH UNILATERAL RENAL AGENESIS: CASE REPORT

Dr. Ankisha Sharma*[a] and Dr. Aabha Sharma[a]

[a]Junior Resident, Department of Obstetrics and Gynaecology, Dr. Rajendra Prasad Government Medical College and Hospital, Tanda, Kangra, H.P.

***Corresponding Author: Dr. Ankisha Sharma**
Junior Resident, Department of Obstetrics and Gynaecology, Dr. Rajendra Prasad Government Medical College and Hospital, Tanda, Kangra, H.P.

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ABSTRACT

Mullerian duct anomalies are those structural anomalies which occur due to errors in mullerian duct devolpment during embryonic morphogenesis. Incidence is 2-3% in fertile women and 3% in infertile women and can be diagnosed in infancy, adolscense or adulthood with common complaints of repeated abortions, preterm labour, IUGR, malpresentations, dystocias at delievery, infertility, dysmenorrhoea, amenorrhoea etc. Diagnosis is radiological and can be confirmed by hysteroscopy. A 30 yrs old female presented with complaint of amenorrhoea since 9 months and was diagnosed as breech presentation on ultrasonography. On history taking patient had complain of irregular menstrual cycles and severe dysmennorhoea since menarche and patient had complaint of primary infertility since 4 years of marriage. The patient underwent emergency caesarean section and intraoperatively found to have unicornuate uterus without horn with absent right fallopian tubes and ovaries. Then patient was further investigated postoperatively to rule out any ectopic ovary, renal abnormalities and skeletal anomalies. On USG KUB patient was found to absent right kidney in association with absence of right ovary. There is likelihood of association between mullerian renal and skeletal anomalies which is having rare occurrence.

KEYWORDS:

INTRODUCTION

In over 30% of patients with unilateral agenesis there is marked association with mullerian devolpmental anomaly.[1] These abnormalities may include ageneis, duplication, rudimentary, unicornuate, bicornuate uterus, double or absent vagina, absent or hypoplastic ovaries, absent fallopian tubes and abnormal external genitalia etc. Usually 80-85% of these patiens with mullerian duct anomalies have malpresentation and almost 83% of them land up having caesarean section as mode of delievery.[2] Incidence of breech presentation is almost 61%, transverse lie is 11% and 25% of them land up with preterm delievery, 12% with IUGR, also the reproductive outcome can be impaired by these mullerian abnormalities.[2] The associated renal agenesis might relate with the pregnancy induced hypertension.[3]

Most of cases with mullerian duct anomalies are not symptomatic but may present with complaint of abdominal mass, vaginal mass, menstrual complaint, infertility, repeated abortions, placental abnormality, dystocia at delievery etc.[4] The basic etiologies behind these abnormalities are through teratogenic drugs(thalidomide, diethylstilbestrol), radiation exposure, polygenetic causes and familial factors.[4] According to American Fertility Society(AFS) the classification of mullerian anomalies is done as follows

We hereby report an interesting case of mullerian anomaly with unilateral renal agenesis in a 30 yrs Primigravida at Period of gestation 37 weeks 1 day with breech presentation.

CASE REPORT

A 30 years Primigravida presented to Obstetrics and gynaecology OPD at Dr. Rajendra Prasad government college and hospital Tanda, Kangra Himachal Pradesh for routine antenatal check up at period of gestation 37 week 1 day for safe confinement of pregnancy. On vital monitoring her Blood pressure was found to be 140/92 mmhg on right arm in sitting position which on repeat after 6 hours was 144/90 mmhg. Patient was examined, on Per abdomen examination fetal presention was found to be breech and the height of uterus was found to be less than period of gestation, which was confirmed by ultrasonography.

Patient was admitted in antenatal ward in view of 30 years Primigravida at period of gestation 37 weeks 1 day with breech presentation with Intrauterine growth restriction with Gestational hypertension under evaluation for safe confinement of pregnancy. Patient attained menarche at 13 years of age, her cycles were irregular lasting for 3-5 days every 45-60 days associated with dysmenorrhoea. Patient was married for 4 years and has conceived spontaneously after 4 years of primary

infertility. Patient had complaint of spontaneous leakage and was planned for emergency lower segment caesarean section. Intraoperatively there was incidental finding of unicornuate uterus without rudimentary horn(2d), absent right ovary and fallopian tubes. A alive full term baby was extracted as flexed breech with APGAR 8 and 10 and birth weight 2220 gm with no visible gross congenital malformation. The mother had no intraoperative and post surgery complication.

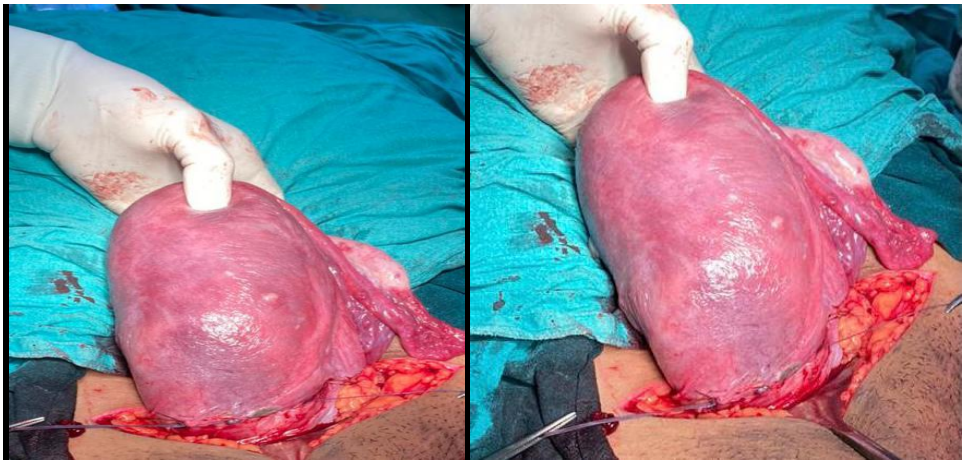

Figure 2: Intraoperative image showing unicornuate uterus with absent fallopian tube and ovary on right side.

The patient was investigated further to find out associated renal and skeletal abnormalities and was incidentally diagnosed with absent right kidney.

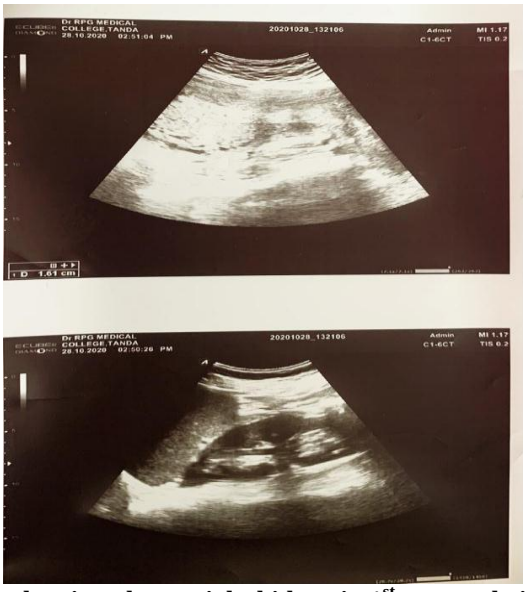

Figure 3: Ultrasound image showing absent right kidney in 1st spot and visible left kidney in 2nd spot.

DISCUSSION

As per the already done case reportings there is evidence of absence of one or both uterine tubes and ovaries along with a normal uterus which is a very rare finding.[6,7] There have been reportings of isolated congenital absence of fallopian tubes. These anomalies originate from two possible causes first considering torsion followed by necrosis of one or both adnexa during childhood or even in the fetal stage and second is the congenital absence of the adnexa due to mullerian anomaly with associated mesonephric anomalies associated of the same side.[8]

The real etiology of unilateral absence of fallopian tubes and ovaries remain unclear but the absence of other anatomical structures like unicornuate uterus and associated renal anomalies point towards developmental mullerian defects. In these cases puboovarian remnants can be seen in the peritoneal cavity and as per the studies unilateral congenital absence of mullerian duct and genital ridge in association with mesonephric duct anomalies of same side are more common.[9,10] Absence of fallopian tube may arise from canalization failure of mullerian ducts leading to unicornuate uterus, it might be possible that unilateral tubal patency is there.[11]

As per the data available there is no recommendation for screening every patient with mullerian anomalies for renal agenesis though the associations are quite common.[1] The association of malposition are quite common with these patients of mullerian anomalies specifically unicornuate uterus, bicornuate uterus, arcuate uterus and septate uterus. There is also associated placentation defects in many of these cases.[2,3]

Most cases of mullerian duct anomalies remain undiagnosed due to lack of clinical suspicion and absebce of any specific pathognomic clinical and radiological characterstics. Because it is associated with wide range of gynecological and obstetric complication, it is important for healt care providers to be aware of its existence and role of antenatal radiological investigations in its diagnosis. The presence of multiple congenital anomalies with history of infertility should be considered a criteria of suspicion needing further investigations for mullerian duct anomalies in the beginning of antenatal period only. The early detection of these mullerian anomalies can facilitate in making a appropriate plan for delievery and rest of the investigations, counseling and future obstetric outcomes.[12]

CONCLUSION

There is significant data giving evidence of mullerian anomalies having associations with genitor urinary anomalies. There is association of history of infertility as well as recurrent abortions in these cases of mullerian anomalies. The preterm onset of labour is also common and there is significant association of these mullerian anomalies with malpresentation most common association with breech presentation. The babies delievered are found to have intrauterine growth restriction in many of these patients having uterine anomalies. So the overall reproductive outcome of these patients having mullerian anomalies have direct impact on the preconceptional, antenatal, mode of delivery and postnatal effect on the newborn .

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