

Mullerian Duct Anomaly - A Case Report

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Abstract: Congenital abnormalities are usually the rare cases seen in day to day practice, Mullerian Duct Anomaly is one among them, Prevalence shows 0.001 in 10% population are diagnosed under this disorder as it is asymptomatic and is diagnosed accidentally. Beeja and Beejabhagaavyava can be considered in Ayurveda as they are involved in the formation of organ during Garbhdana and any vitiation of doshas during this process leads to garbhavikruti and yonivyapad. Though these anomalies are asymptomatic, they have major impact on female reproductive system and cause some major issues like abortion, infertility, primary amenorrhoea and menstrual irregularities. HSG, USG and MRI are the investigations used to diagnose such cases and for accurate results. Hence a case has been report and made an effort to understand the concept.

Keywords: Mullerian Duct Anomaly, Beeja and Beejabhaga, varta, vandhya

1. Case Report

A patient aged 28years from Ghataprabha a house wife with opd no-5309, visited prasooti opd on 19/3/18 with complaints of irregular menstruation since menarche and no issues since 2 years. She is a known case of PCOD. On physical examination her vitals were stable and local examination (per vagina & per speculum) was done and there were no abnormal findings. She underwent USG on (19/3/18) which showed the impression as uterus-Endometrium thickened,

central position(12mm), Right ovary finding shows -4.5x3.0 x 3.4 & 25ml volume with small (2-4mm) sized follicles in periphery with increased echogenicity, Left ovary showed the impression as not visualised. She was advised to undergo MRI pelvis for the confirmatory of USG reports. The MRI pelvis showed the impression as few sub-endometrial cysts, non-visualised left ovary, bulky right ovary with polycystic pattern.

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Name : MRS. SANYOGITA M JOTAVAR
 Age/Sex : 29 Yrs./F
 Ref. By : Dr. ASHA HOSUR (KLE AYURVEDIK)
 Date : 06-Jun-2018

MRI OF PELVIS
 Multiphase multisequence MRI of the pelvis done.

CLINICAL DETAILS: infertility.

FINDINGS:-
UTERUS: appear normal in size (measuring about 5.5 x 3.9 x 5.1 cms), shape and signal intensity. Endometrium measures 10.0mm in thickness and shows normal signal. Few subendometrial cystic lesions seen along left lateral upper uterine wall largest measuring 5mm. The junctional zone is intact.
Ovaries:
 Left ovary is not visualized in left adnexa / elsewhere in the pelvis.
 Right ovary is bulky in size measuring 3.9 x 3.3 x 3.2 cms (volume ~21 cc)
 Right ovary shows multiple small follicles arranged in periphery with enlarged central stroma.
Bilateral parametrium appears normal.
 The urinary bladder is distended and shows smooth walls. No evidence of any obvious growth or calculus.
 The iliac vessels show normal flow voids.
 No evidence of iliac or obturator lymphadenopathy.
Screening of upper abdomen is unremarkable.

IMPRESSION:

- Few subendometrial cysts – non specific.
- Non visualized left ovary.
- Bulky right ovary with polycystic pattern.

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Clinical Profile: H/o Primary infertility.

OVULATION STUDY (FOLLICULAR STUDY)

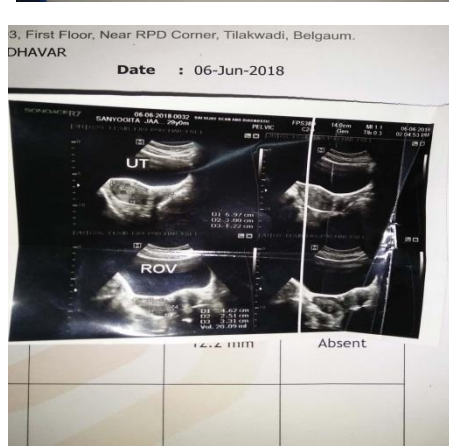
UTERUS - is anteverted and normal (6.0 x 3.0 x 3.8 cm in size), normal in shape & echotexture. Endometrium is thickened & central in position (12.2 mm).

BOTH OVARIES - right ovary is bulky in size, measures 4.6 x 2.5 x 3.3 cms & 20.4 ml in volume globular in shape and show multiple small (2 - 4.0 mm) equal sized follicles, which are peripheral in distribution and show increased stromal echogenicity. --- SOS MRI for better confirmation.

Left ovary is not visualized in left adnexa --- SOS MRI for better confirmation.

| Date | Day | St. Ovary | FOLLICLE | Endometrium | P. D. Fluid |
|------------|----------------------|-----------------------|----------|-------------|-------------|
| 06/06/2018 | 12 th Day | No dominant follicle. | | 12.2 mm | Absent |
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2. Introduction

2.1 Incidence of MDA

The Mullerian duct anomalies among the general population is 3-4%. Amongst them; Agenesis -4%, Unicornate-10%, Uterine didelphys-8%, bicornate uterus-26%, septate-35%, arcuate-18%. (IAMJ)

The Mullerian ducts are the primordial anlage of the female reproductive tract. The fallopian tubes, uterus, the uterine cervix and the superior aspect of the vagina are formed by the mullerian duct system¹ (Catherine L Minto et al 2003). The obstetricians and gynaecologists now a days are encountering some developmental anomalies caused by Mullerian duct system which leads to some fascinating disorders. The prevalence of these anomalies ranges from 0.001 to 10% in the general population and from 8-10% in women with an adverse reproductive history². (Kowsalaya et al, 2014)

These abnormalities are usually observed after the onset of puberty and mostly accidentally. A wide variety of malformations can occur when this system is disrupted. Mullerian agenesis, a congenital malformation of the genital tract is the second most common cause for primary amenorrhoea. Diagnosis of MDA's is clinically important because of the high risk of infertility and miscarriage. 15% of women experience recurrent miscarriages³ (Folch M et al 2000).

In Ayurveda it is explained that the beeja and its component plays an important role in the formation of organs and particular parts consequently develops into the specific part. The specific organ which is not developed properly could be because of the vitiation of beejabhagaavayava and sometimes due to vatadosha which hampers the development of reproductive organs⁴.

Beeja Dushti-

During pregnancy the aggravated vata in mother affects artavarupa, beeja during garbhadana which leads to abnormalities of beeja, atma, karma, ashaya, bala, ahara and vihara, and thus produces abnormalities of fetus. Yonivyapad like sandiyonivyapad, suchimukhiyonivyapad are lead due to abnormality in beeja⁵.

Beeja Bhaga Dushti

Garbhangavikruti depends upon the condition of beeja, whatever part of the beeja is defective, the part of the body developing from that portion of beeja will be abnormal. Vitiation of beejabhaga is responsible for the formation of reproductive organs (uterus, fallopian tube, cervix and vagina) leads to improper formation of that particular organ which exhibits congenital deformities of female genital organs leading to reproductive failure.

Clinical Diagnosis

Majority of uterine anomalies are unnoticed until puberty-

- At puberty-Primary amenorrhoea, primary dysmenorrhoea are the menstrual abnormalities which are typically observed in few cases

- At childbearing age/ Fertile age-Miscarriage, abortion and infertility are the complaints basically seen.

These anomalies are rarely discovered during imaging evaluation for another condition or during any surgical intervention.

Clinical Investigations

Investigations which are helpful in the clearance of the diagnosis are HSG, 3D –USG, MRI.

- HSG method is used to evaluate the cervical canal, uterine cavity and fallopian tube. Its efficacy in diagnosing anomalies is debatable(IAMJ)
- 3D-USG shows high specificity and sensitivity in evaluations on all uterine anomalies.
- MRI provides high resolution images of the uterine body, fundus and internal structure.

3. Discussion

Reproductive abnormalities caused due to Mullerian Duct anomaly are difficult cases to diagnose; as usually they are asymptomatic in individuals but has great impact on women sometimes as these causes some of the signs and symptoms like menstrual irregularity, abortions and infertility. In Ayurveda Beeja, Beeja Bhaga Avayava concept can be considered as these play an important role in the formation of organs and due to vitiation of doshasbeeja, beejabhagaavayava gets affected. Beejadushti and beejabhagadushti causes garbhavikruti and yonivyapad. Accurate diagnosis and investigations is required to find out such deformities. In classics such conditions are explained as asadhya to treat.

As explained by acharyacharak Varta indicates congenital abnormality of uterus due to involvement of Beejabhagabayava and thus can be taken into consideration. Further, involvement of Beejabhaga highlights absence of streekarabhava, this can be understood with primary and secondary infertility involving chromosomal aberration.

Vandhyaa is the condition occurs due to abnormality in Beejabhaga. Acgharya Susruta mentioned it as yoni vyapat which indicates female infertility caused primary amenorrhoea due to congenital absence or distinct anomalies in uterus as well as ovary.⁷

4. Conclusion

Mullerian Duct Anomaly is a rare disorder, though such cases are been reported and these anomalies have an impact on female reproductive system and causes menstrual irregularity, infertility (Primary &Secondary) therefore we have made an effort to put light on this concept by reporting a case above. A proper knowledge about these abnormalities is necessary for further diagnosis and treatment.

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