

Genital organ development and mullerian Anomaly and their impact on reproductive outcomes

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How to citation this article: Dr. Pooja Gandhi, Dr. Prof Vrunda Joshi, “Genital organ development and mullerian anomaly and their impact on reproductive outcomes”, IJMACR- July – August - 2021, Vol – 4, Issue - 4, P. No. 71 – 72.

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Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Congenital anomalies of the female reproductive tract may involve the uterus, cervix, fallopian tubes, or vagina. Uterine anomalies are the most common of the mullerian anomalies but we dont know the true incidence since many women are asymptomatic and sensitive imaging modalities have only become recently available. The proper management of infertile women with uterine anomalies is controversial but first we need to identify them. In this paper we aim to explore 3D Ultrasound as an emerging modality in diagnosing uterine anomaly in females with infertility or recurrent pregnancy losses.

Keywords: Mullerian anomalies, Mullerian duct abnormalities, Uterovaginal anomalies, infertility, recurrent pregnancy loss, 3D Ultrasound Imaging.

Introduction

It is estimated to occur in 3-4% of women and about half of these are associated with clinical disease. X-Ray contrast HysteroSalpingography is the first line investigation done since a long time. Saline Infusion SonoHysterography has evolved as an adjunct to TransVaginal 2D Sonography. A Hysteroscopy alone also fails to make this distinction and a concurrent laparoscopy

needs to be carried out to make a complete diagnosis. MRI can also delineate these malformations. 3D Ultrasound is emerging as a sensitive and remarkably specific modality for mapping the anomalous uterus. Women with these abnormalities consult mainly for primary amenorrhoea, infertility and obstetric complications like recurrent pregnancy loss.

Aims and Objectives

1. Review the embryologic development of the mullerian ducts.
2. Discuss the different types of Mullerian Duct Anomalies based on USG Findings.
3. Discuss the treatment used in different type of anomalies.

Materials and Method

50 patients suspected of having primary infertility and recurrent pregnancy losses (2 or more first trimester abortions) of age more than 20 years who came in the OPD of GR Medical College, Gwalio (Madhya Pradesh) are initially referred for pelvic 2D Ultrasonography which has very limited role. After initial screening the patients are sent for 3D ultrasound at a private clinic. 3D USG and MRI are an excellent tool for studying the external uterine

fundal contour and morphology which is the key component of uterovaginal anomalies characterization as compared to HSG which is routinely used in evaluation.

Observation and Results

Out of 50 females evaluated, 42 were found to have normal uterine morphology and were further evaluated for other causes of infertility.

In the rest 08 we encountered a mild distortion of the uterine shape and structure. 3 were found to have an arcuate uterus in which the angle formed by the line joining the fundal tips of two endometrial cavity was more than 90 degrees and the deepest point in endometrial cavity was less than 1.5 cm away. They were followed up for conception.

3 were found to have normal uterine outline but the internal indentation was more than half of the uterine wall thickness and the deepest point in the endometrial cavity was found more than 1.5 cms away hence suggesting Septate Uterus. They were offered the option of hysteroscopic septum resection.

1 patient was having a classical bicornuate uterus with abnormal fundal outline with external indentation at fundal outline of more than half of the uterine wall thickness and was referred for a hysteroscopy and metroplasty.

Conclusion

Mullerian duct malformations are infrequent alterations but with important clinical implications such as infertility, pregnancy losses, obstetric complications, etc. For its specific diagnosis 3D ULTRASOUND is extremely important and has emerged as the latest first line diagnostic tool.

References

1. The American Fertility Society 1988. The American Fertility Society classifications of adnexal adhesions,

distal tubal occlusion, tubal occlusion secondary to tubal ligation, tubal pregnancies, Mullerian anomalies and intrauterine adhesions. FERTILITY AND STERILITY. Vol. 49, No. 6, June 1988 p.no.944-955.

2. Grimbizis, G.F. et al. The ESHRE/ESGE consensus on the classification of female genital tract congenital anomalies. Human reproduction, vol.28,no.8,page no.2032-2044.
3. Chan YY et al,2011. Reproductive outcomes in women with congenital uterine anomalies: a systematic review. Ultrasound in obstetrics and gynecology,vol8,no.4,page 371-382
4. Müllerian defects in women with normal reproductive outcome. Simón C, Martínez L, Pardo F, Tortajada M, Pellicer A. *Fertil Steril.* 1991 Dec;56(6):1192-3. doi: 10.1016/s0015-0282(16)54741-4.
5. Uterine anomalies. How common are they, and what is their distribution among subtypes? Nahum GG. *J Reprod Med.* 1998 Oct;43(10):877-87.