International Journal of Research in Medical Sciences
Nagpal N et al. Int J Res Med Sci. 2023 Nov;11(11):4225-4227
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: https://dx.doi.org/10.18203/2320-6012.ijrms20233407

Case Report

Intramyometrial ectopic pregnancy-a rare case

Nimisha Nagpal*, Amrit Pal Kaur, Sukriti Sharma

Department of Obstetrics and Gynaecology, Government Medical College, Amritsar, Punjab, India

Received: 05 September 2023
Accepted: 05 October 2023

***Correspondence:**
Dr. Nimisha Nagpal,
E-mail: nagpal15nimisha@gmail.com

ABSTRACT

Ectopic pregnancies comprise 1-2% of all the first trimester pregnancies. Out of this, 95% are tubal in origin and only 5% are non-tubal. We report a rare type of intramyometrial ectopic pregnancy for which less than 50 cases have been reported so far. A case of intramyometrial pregnancy in 35-year-old primigravida with no previous history of uterine trauma, which is thought to be the main culprit behind its pathophysiology. Effective management in this case preserved the uterus for future pregnancies. Follow up was done till β- HCG levels returned to undetectable state.

Keywords: Intramyometrial pregnancy, TVS, β-HCG, Methotrexate

INTRODUCTION

Myometrium is a very rare location of an ectopic pregnancy, less than 50 cases have been reported in the literature so far.[1] The most common etiologic factors include previous uterine trauma such as dilatation and curettage, caesarean section, myomectomy, manual removal of the placenta resulting in sinus tract in the endometrium.[1] This type of pregnancy poses both a diagnostic and therapeutic challenge.[2] However, if the accurate diagnosis is made earlier, conservative management can be done. Treatment modalities include expectant management, medical management with systemic or local methotrexate, uterine artery embolization, hysterectomy or intrafetal injection of potassium chloride.

CASE REPORT

A 35-year-old female gravida-1, para-0 visited the obstetrics and gynaecology OPD at GMC, Amritsar with chief complaints of cessation of menses for 1 month 18 days and on and off episodes of spotting per vaginum since 25 days. Bleeding per vaginum increased 15 days back along with pain lower abdomen. Urine pregnancy test done was weakly positive.

She was married for 1 year and had no past history of any medical illness or surgical intervention. However, patient had history of heavy menstrual bleeding with regular cycles for which she took hormonal treatment in form of contraceptive pills. Patient also took STI kit VI for pelvic inflammatory disease in the past year.

Previously done TVS at 6.2 weeks revealed no gestational sac in uterine cavity, but few blood clots in lower cervical region and upper uterine segment. Serum β-HCG levels at 4.6 weeks POG was 143.34 mIU/ml. Its levels continued to rise (after 1 week β-HCG=463 mIU/ml). Diagnosis of an ectopic pregnancy was constantly in mind. Again, a transvaginal ultrasound was done at 7 weeks POG which showed an irregular, cystic lesion (10.2×7.3 mm) with peripheral echogenic rim in myometrium posteriorly in fundal region. An irregular echogenic focus was seen within it. Differential diagnosis of an intramyometrial pregnancy was given.

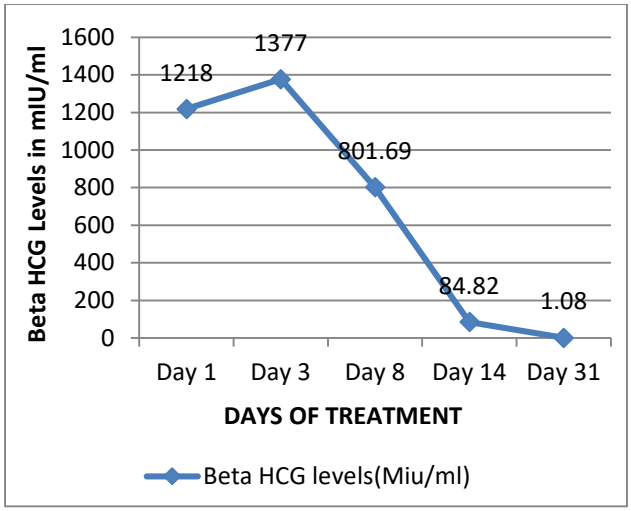

Figure 1: Trend of beta HCG levels during methotrxate treatment.

Figure 2: TVS of irregular cystic area in the posterior myometrium with an irregular echogenic focus seen within it.

On general physical examination, patient was conscious and well oriented with stable vitals. Abdomen was soft on palpation; no tenderness could be elicited. On per vaginal examination, uterus was normal in size, retroverted, firm, mobile and bilateral fornices free. Counselling was done regarding the site of pregnancy and associated risks of haemorrhage. With the informed consent, decision for medical management with methotrexate was taken. Patient was started on multiple dose (1st, 3rd, 5th, 7th day) regimen of methotrexate (Mtx) and folinic acid. All routine investigations including CBC, ABORh, viral markers, liver function tests and renal function tests were done.

Pre-treatment β-HCG on day 1 (7.4 weeks) of Mtx was 1218 m IU/ml. Four doses each Mtx and folinic acid were given on alternate days in dosage of 1 mg/kg and 0.1mg/kg respectively. Close monitoring of CBC and liver function tests was done. β-HCG level after 1st dose slightly increased to 1377 mIU/ml followed by falling trends. After fourth dose of Mtx its level was 801.69 mIU/ml. After 1week level was 84.82 mIU/ml and after another 2 weeks level was reported as 1.08 mIU/ml. Advice on contraception was given.

DISCUSSION

The pathophysiology of intramyometrial pregnancy remains debatable. Ong et al described its pathophysiology by the increased lytic activity of the syncytiotrophoblast and defective decidualisation.[4] This pregnancy rarely goes beyond 12 weeks. It carries 2.5% risks of uterine rupture and maternal mortality if left undiagnosed.[3]

Symptoms are very non-specific which include spotting per vaginum and pain abdomen. Suspicion arises promptly with positive urine pregnancy test but non-localization of intra uterine gestational sac. Imaging especially TVS helps to delineate the exact location of gestational sac. Serial β-HCG adds as an aid to reach the diagnosis as in our case. The advent of various conservative techniques has decreased the incidence of hysterectomy.[5] Treatment is individualised according to hemodynamic stability, location of lesion with depth of muscular invasion and desire for future fertility.

After 2 years, this patient conceived again and delivered at term by caesarean section.

CONCLUSION

Medical management with methotrexate preserves the uterus for future pregnancies as in our case. Intramyometrial cases of ectopic pregnancy pose a real challenge to reach the diagnosis but with the help of TVS, timely and accurate diagnosis along with close monitoring of the patient can prevent the associated morbidity and mortality. Misdiagnosis can result in fatal haemorrhage and uterine rupture.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Boukhanni L, Ait Benkaddour Y, Bassir A, Aboulfalah A, Asmouki H, Soummani A. A rare localization of ectopic pregnancy: intramyometrial pregnancy in twin pregnancy following IVF. Case Rep Obstetr Gynecol. 2014;2014:893935.
2. Reddy R. Intramyometrial gestation: a rare localization of ectopic pregnancy. Trop J Obstetr Gynaecol. 2017;34(1):73-5.
3. Venkatesh M, Sindhuja KL, Sundeep NV. Intra-Myometrial pregnancy-A rare site of ectopic pregnancy. Clin Case Studies Rep. 2020;3(1):1-2.

4. Kaul AR, Gupta UP, Kant D, Kant A. Intramyometrial pregnancy presenting as abnormal uterine bleeding in perimenopausal female. J Mid-life Health. 2022;13(1):85.
5. Falfoul A, Jadoui A, Bellasfar M, Kaabar N, Hamdoun L, Zouari F, et al. Intramural pregnancy: a case report. J Gynecol Obstetr Biol Reproduct. 1992;21(6):641-3.

Cite this article as: Nagpal N, Kaur AP, Sharma S. Intramyometrial ectopic pregnancy-a rare case. Int J Res Med Sci 2023;11:4225-7.