



PREGNANCY IN HYPOPLASTIC UTERUS WITH PREMATURE OVARIAN INSUFFICIENCY-A RARE CASE STUDY

Obstetrics & Gynaecology

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ABSTRACT

Premature ovarian insufficiency (POI) earlier called as premature ovarian failure occurs when ovaries stop working before 40 years of age. Here we are presenting a case of 24 year nulligravida with premature ovarian insufficiency, with hypoplastic uterus. After proper evaluation of couple they are counselled for cyclical hormonal therapy for 3 months followed by donor oocyte and husband sperm IVF+ICSI. Frozen embryo transfer was done and she conceived and delivered a single live female baby by cesarean section at term gestation. Hence we conclude that in women with hypoplastic uterus and premature ovarian insufficiency pregnancy can be achieved after diagnosing the condition and opting for best available treatment.

KEYWORDS

Premature ovarian insufficiency, hypoplastic uterus, donor oocyte, hormonal therapy.

INTRODUCTION

Premature ovarian insufficiency has various causes like decreased ovarian follicles at birth, damage to ovaries during surgery, chemotherapy or radiotherapy, dysfunctional follicles and certain genetic disorders like Turner syndrome, Fragile X syndrome. The multiple etiologies of spontaneous POI that are recognized thus far include genetic, autoimmune, infectious, and idiopathic. Most cases of POI, accounting for over 90%, are idiopathic with no discernible cause¹

In women with occult premature ovarian insufficiency, sometimes the only sign may be unexplained infertility.

Case Study

A 24 year sexually active woman with marital life of 5 years, presented with primary infertility. She attained menarche at 12 years of age, had regular cycles of menstruation with moderate flow and mild dysmenorrhea. Later she had cycles for every 20-25 days followed by irregular cycles once in 3-4 months. There was no significant medical and surgical history. On general physical and systemic examination no abnormality detected. Per abdomen was soft with no palpable masses.

Examination Findings

On general examination height was 158cm, weight 58kgs with BMI 22. Genital examination appears normal. Ultrasound pelvis findings are suggestive of hypoplastic uterus (5*1.7*2.7cm), with atrophic ovaries. Right ovary (1.8*0.7cm), left ovary (1.3*1cm)



Figure 1. Hypoplastic Uterus Before HRT

Hormonal profile revealed FSH of 32.4 IU/ml, LH of 18.8 IU/ml, estradiol <10pg/ml, AMH of 0.03ng/ml, TSH is 2.0042uIU/ml, prolactin 10ng/dl. Karyotyping was normal with 46XX. She was

diagnosed with hypoplastic uterus and premature ovarian insufficiency.

Husband Semen Analysis was Normal.

Management and Outcome

Adequate counselling and appropriate treatment options were explained. As there was hypoplastic uterus 3 cycles of hormonal therapy was given. Size of uterus after HRT was 6.5*3.2*3.9 and due to atrophic ovaries, donor oocyte was advised. Risks and benefits associated with treatment protocols were explained.



Figure 2. Uterus After HRT

Donor oocyte and husband sperm IVF+ICSI was done. 2 DAY3 Frozen embryos were transferred. She conceived and delivered a female baby by cesarean section.

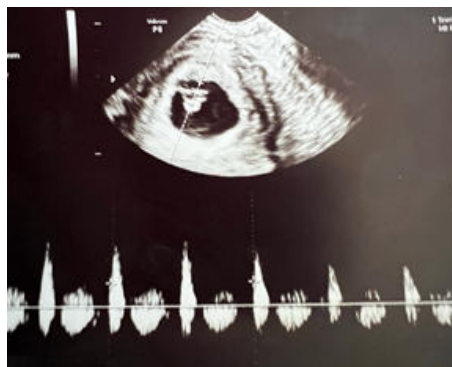


Figure 3. Fetal Heart Rate

DISCUSSION

Premature ovarian insufficiency is a complex entity with myriad of etiologies and multisystem sequelae that results from early deprivation of hormones secreted by ovaries. POI may be the result of an accelerated destruction of oocyte complement because of a complex spectrum of disorders with genetic, autoimmune, or toxic underpinnings².

Up to 25% of women with POI may spontaneously ovulate, and 5% to 10% will conceive and deliver after being diagnosed with POI³. Despite marked advances in the field of reproductive medicine in recent years, there are no interventions that can reliably improve residual ovarian reserve parameters or any treatment other than use of donor eggs which can improve conception rates in women with POI⁴.

Women with decreased AMH which is a critical marker of follicular depletion and ovarian reserve will benefit from IVF with donor oocytes. Women with POI should be reassured that spontaneous pregnancies from idiopathic POI do not show any higher obstetric morbidity or neonatal risk as compared with the general population⁴.

CONCLUSION

Pregnancy can be achieved in women with premature ovarian insufficiency after diagnosis and proper treatment.

IVF with donor oocyte and husband sperm and embryo transfer are established methods with well-documented pregnancy and live birth outcomes.

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