

Spontaneous Pregnancy in a Patient with Premature Ovarian Insufficiency- A Case Report

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Abstract

Background: Premature Ovarian Insufficiency (POI) is a very distressing condition specially for reproductive aged women due to associated infertility. It has serious health hazard also. But there may be sporadic ovulation and spontaneous pregnancy occur in patients suffering from POI.

Case: A 32 year old POI patient conceived spontaneously during HRT treatment. Pregnancy period was uneventful. A healthy female baby was born by caesarean section.

Conclusion: Return of ovarian function and spontaneous pregnancy is possible in women with POI.

Key Words: Premature ovarian insufficiency, Hormone replacement therapy, Spontaneous pregnancy.

Introduction

Depletion or dysfunction of ovarian follicle with cessation of menstruation before the age 40 is called premature ovarian failure. National Institute of Health called it “Primary Ovarian Insufficiency” as ovarian function is intermittent or sometimes unpredictable³. Approximately 1% of women suffer from premature ovarian insufficiency before the age of 40 and .1% by the age of 20⁴. Sometimes patient comes with the complaints of infertility¹. Despite this condition pregnancy may occur in up to 5% cases¹. Symptoms are usually similar to those of menopausal symptoms, like: Oligomenorrhoea or amenorrhoea, hypogonadism, elevated gonadotropins and low or absent antral follicle (AFC) in the ovary⁷. Although most of the time causes remain unknown, but some causative factors are: chromosomal anomaly (Turner syndrome), Fragile X syndrome, environmental pollution, autoimmune disease, infiltrative or infectious cause, pelvic surgery, effects of cancer treatment (chemo and radiotherapy), toxins like cigarette smoking, pesticides^{1,3,4,8}.

Though most of the patients of POI complaint of infertility, it has a great impact on health. Estrogen hormone deficiency may cause severe neurological, metabolic, cardiovascular,

diminished bone mineral density leads to osteoporosis and fracture and psychological impact like anxiety and depression⁵.

Case Report

A 32-year-old hypertensive woman consulted at gynae OPD with the complaints of amenorrhoea for 14 months, hot flush, dyspareunia, dry vagina and generalized body ache for same duration. She is also seeking baby for 1 year. Her menarche was at 13 year of age and was regular with average flow. She had no family H/O POI, no personal H/O autoimmune disease, no chemo or radiotherapy or pelvic surgery except caesarean section. Her hormone profile was:FSH: 96.10 mIU/ml, LH: 21.79 mIU/ml, E2: 10 pg/ml. TSH: 1.86 uIU/ml, Prolactin: 6.10 ng/ml and AMH: <.01 ng/ml .

Pelvic USG shows normal uterus and indistinguishable ovaries with no antral follicle. Her karyotype was normal female pattern, 46XX. Repeated laboratory results confirmed the diagnosis of premature ovarian insufficiency. HRT was started to maintain bone mineral density and to reduce hot flushes.

Patient decided to visit abroad regarding her fertility issue.

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Clinician of abroad negatively counseled for fertility issue and advised to carry on HRT. After 3 months of continuing of HRT (Conjugate Equine Estrogen and Progesterone) one day patient visited at OPD and told that no withdrawal bleeding after HRT. She was advised to wait for another week. After 3 days she again shared that, she has some unusual symptoms, like: nausea, bloating. Urine pregnancy test was suggested and it became positive. Folic acid, progesterone support and low dose aspirin was advised and pregnancy safe antihypertensive was started (chronic hypertension). USG was done at 7 weeks and single live intrauterine pregnancy was found. Her pregnancy journey was smooth without any complication. At 37 completed week she delivered a healthy female baby by caesarean section.

Discussion

Premature Ovarian Failure (POF) is medically misnomer term. Ideally it should be premature ovarian insufficiency. Patients of POI have 5% chance of spontaneous conception, mostly found during HRT treatment⁴. IVF with donor oocyte with hormonal supplements can increase the pregnancy rate⁶. Anna Calik et al showed that a woman of POI conceived 6 months after HRT¹. Our patient conceived 3 months after HRT. Ying Gu et al. showed that successful spontaneous and live birth in a Chinese woman with premature ovarian insufficiency with H/O 10 years amenorrhoea².

The American College of Obstetricians and Gynecologists and the American Society for Reproductive medicine recommend two random tests of FSH and estradiol levels at least one month apart because a single test has very limited reliability as inter and intracycle variability is high.

Conclusion

POI is very distressing condition for infertile patients. Usually, oocyte donated IVF is recommended for pregnancy. But spontaneous pregnancy can be achieved. Though ovary is exhausted and antral follicle is almost nil but sporadic ovulation may occur resulting in a successful pregnancy.

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