

# Spontaneous Conception after Premature Ovarian Failure Diagnosis - A Case Report

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## Abstract

This is a case of a 28-year-old woman who was admitted in the Subfertility Department of our hospital. She was trying to conceive naturally for 2 years with unprotected, coordinated sexual intercourse. Her hormonal levels showed high FSH 35 IU/L, low estradiol 6 IU/L and hypomenorrhea, so she fulfilled the criteria for Premature Ovarian Failure (POI) diagnosis. She was monitored via Ultrasound to check her ovulation and we prescribed daily fertility supplements with riboflavin (Vitamin B2), niacin (Vitamin B3), pyridoxine (Vitamin B6), 5-methyltetrahydrofolate (activated Vitamin B9), methylcobalamin (activated Vitamin B12), zinc, betaine and L-cystine. After 2 months she conceived naturally, she had an uncomplicated pregnancy and delivered naturally a healthy newborn. To conclude, although POI is a rare diagnosis, with bad prognosis for natural conception, there are therapeutic approaches to help with infertility.

**Keywords:** *Infertility; Subfertility; POI; Ovarian failure*

## 1. Introduction

Premature ovarian failure (POI) is associated with infertility and is diagnosed in 1% of the female population. Ovarian failure is responsible for 50% of subfertility in women and it is categorized in primary ovarian failure and premature ovarian failure. The symptoms are similar to those of menopause: oligo/amenorrhea, hypoenestrogenism, elevated level of gonadotropins, and diminished number of follicles within the ovaries. The criteria are elevated FSH levels (>25 IU/L) on two separate occasions at least one month apart, with concomitant low estradiol (E2) levels (<50 pg/mL), and or amenorrhea for at least 4 months in women younger than 40 years of age [1]. The mechanism behind this disease is not yet known, but genetic, autoimmune, enzymatic and environmental reasons are under investigation [2,3]. Besides causing infertility, POI is associated with multiple

health risks such as menopausal symptoms, decreased bone mineral density and increased risk of fractures, greater risk of cardiovascular diseases, and psychological impact, which may include depression and potential early decline in cognition. Ovarian failure is not permanent, which differentiates this condition from menopause. Women with POI ovulate extremely rarely. However, 5% of such women conceive spontaneously and have a normal pregnancy after the diagnosis is established [2].

## **2. Case Report**

A 28-year-old patient was admitted to the Subfertility Department of our hospital. She was trying to conceive naturally for 2 years with unprotected, coordinated sexual intercourse. After taking a detailed patient history, performing a transvaginal Ultrasound, taking vaginal cultures and blood tests, we discovered abnormal hormonal levels. More specifically high FSH 35 IU/L, low estradiol 6 IU/L and hypomenorrhea, so she fulfilled the criteria for POI diagnosis. She was monitored via Ultrasound to check her ovulation and we prescribed daily fertility supplements with riboflavin (Vitamin B2), niacin (Vitamin B3), pyridoxine (Vitamin B6), 5-methyltetrahydrofolate (activated Vitamin B9), methylcobalamin (activated Vitamin B12), zinc, betaine and L-cystine for three months. After 2 months she conceived naturally, she had an uncomplicated pregnancy and delivered naturally a healthy newborn.

## **3. Conclusion**

POI is a main infertility cause and there is still a long way to go as far as understanding it. The main treatment is oocyte donation, and it is not available in many countries. So, it becomes vital to monitor and publish our cases in order to make progress.

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