## Embryo cryopreservation in a case of acute promyelocytic leukemia, incidentally diagnosed during ovarian stimulation for *in-vitro* fertilization

## Manish Banker, Bharat Joshi, Preeti Shah, Deven Patel

Nova IVI Fertility Clinics, Ahmedabad, Gujarat, India

## Address for correspondence:

Dr. Manish Banker, Nova IVI Fertility and Pulse Women's Hospital, 108 Swastik Society, Navrangpura, Ahmedabad - 380 009, Gujarat, India.

E-mail: manish.banker@ novaivifertility.com

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## **ABSTRACT**

A 31-year-old woman presented with secondary infertility, a history of previous miscarriage and two ectopic pregnancies. Salpingectomy had been performed for the left ruptured tubal pregnancy whereas the right unruptured tubal pregnancy was managed medically. *In-vitro* fertilization (IVF) was advised to treat tubal factor infertility of 2 years duration. The patient developed fever and cough on day-10 of ovarian stimulation. Complete blood count and peripheral smear with marked leukocytosis were suggestive of acute leukemia. After obtaining the patient's informed consent, 18 oocytes were retrieved. Following intra cytoplasmic sperm injection, 14 eggs were fertilized, and the resulting embryos were cryopreserved. On a referral to a hemato-oncologist, a bone marrow biopsy was performed, which confirmed acute promyelocytic leukemia (APL). Literature review suggests this to be the first case of APL reported during the course of ovulation stimulation for IVE.

**KEY WORDS:** Acute promyelocytic leukemia, chemotherapy, embryo cryopreservation, fertility preservation, ovulation stimulation