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Lupus - An Enigmatic Cause of Recurrent IVF Failures

Sukanya Chhabra¹ Swapan Nagpal² Shilpa Gulati¹

¹Indira IVF Fertility Center, Amritsar. ²Sukh Sagar Hospital, Amritsar



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INTRODUCTION

- Systemic Lupus Erythematosus is a **multisystem autoimmune disease** largely affecting women in the reproductive age group.
- We present an interesting case of Lupus with **2 missed abortions and 4 IVF failures**.
- Lupus is known to affect fertility adversely – when associated with Anti-phospholipid antibody syndrome, and independently.
- Management of the autoimmune condition and **control of disease activity**, combined with astute infertility management led to a successful outcome.

CASE DESCRIPTION

- A 42 year old female, with secondary amenorrhoea for 7 years, had a history of 2 missed abortions (IVF conceived) and **4 IVF failures**.
- She had pain and swelling in the joints of the hands, malar rash, and hair fall.

- This history aroused a strong suspicion of an undiagnosed immunological cause of recurrent implantation failure.
- A rheumatologist **diagnosed her with lupus** based on clinical features and serological evidence (ANA ++, Anti Nucleosome ++).
- APLA panel and Anti SSA and SSB were negative.
- She also had a **diminished ovarian reserve** with low AMH, and a **thin endometrium**.
- Her disease was controlled with prednisolone, hydroxychloroquine and azathioprine.
- Parallelly, diagnostic hysteroscopy was done.
- She was given **pentoxifylline and tocopherol** for 2 months, which were continued in the final endometrial preparation.
- We gave her **3 endometrial PRPs, GCSF** along with estradiol, aspirin and enoxaparin.



TVS of the patient showing Et ~ 5.4 mm

- 2 good quality blastocysts (OD+SS) were transferred.
- She conceived successfully.
- Immunosuppressants were continued throughout pregnancy along with aspirin and enoxaparin.
- She **delivered a healthy baby** girl at term.

DISCUSSION

- Lupus can **adversely impact female fertility**.
- It can cause **diminished ovarian reserve**, menstrual irregularities, miscarriages, recurrent IVF failures, sudden IUD due to fetal cardiac blocks.

- It may also be associated with **APS**.
- Mao et al suggested that SLE exerted a **detrimental effect on oocyte quality and embryo developmental competence**¹.
- SLE can also **reduce endometrial receptivity** and change the immune environment, resulting in implantation failure.²
- Simerly et al. also suggested the direct **harmful effects of ANA on embryo development**.³
- Our case demonstrates that lupus, when managed well, along with patient-specific IVF treatment can lead to good outcomes.

REFERENCES

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