

THE ROLE OF CORTICOSTEROIDS IN IMMUNOLOGICAL INFERTILITY

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ANNOTATION

Immunological infertility remains a challenging diagnosis in reproductive medicine. Corticosteroids, as potent immunosuppressive agents, have been investigated for their role in reducing antisperm antibodies and improving fertility outcomes. In this study, 40 patients with confirmed immunological infertility were divided into two groups: 20 received corticosteroid therapy, while 20 were assigned to placebo. Treatment outcomes were compared in terms of pregnancy rates and improvement in reproductive parameters. Corticosteroids demonstrated measurable benefits in selected cases, though their use must be carefully balanced against potential adverse effects.

Keywords Immunological infertility, corticosteroids, antisperm antibodies, infertility treatment, reproductive immunology.

Purpose of the Study

The aim of this study was to evaluate the effectiveness of corticosteroid therapy in improving fertility outcomes in patients with immunological infertility.

Materials and Methods

A total of 40 patients diagnosed with immunological infertility based on positive antisperm antibody (ASA) testing were enrolled. Patients were randomly assigned into two groups:

- Control group (n=20): received oral prednisolone (5 mg/day) for 8 weeks.
- Placebo group (n=20): received identical placebo tablets for 8 weeks.

Primary outcome measures included pregnancy rates within 6 months and reduction in ASA titers. Secondary outcomes included improvement in semen quality (for male patients) and implantation success (for female patients undergoing assisted reproductive technologies).

Results

At the end of the study, the corticosteroid-treated group demonstrated:

- A 30% pregnancy rate compared to 10% in the placebo group.
- Significant reduction in ASA titers in 65% of treated patients, versus 15% in the placebo group.
- Improved semen motility parameters in ASA-positive men receiving corticosteroids.

- Higher implantation rates among women undergoing IVF after corticosteroid therapy. Adverse effects were mild and transient, including weight gain and mood changes in a few cases. No severe complications were reported.

Conclusion

Corticosteroid therapy may provide clinical benefit in selected patients with immunological infertility, particularly those with antisperm antibodies or implantation failure. However, routine use cannot be recommended due to limited sample sizes, variability in treatment response, and potential side effects. Larger randomized controlled trials are necessary to validate these findings and optimize treatment protocols.

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