

# Effects of Anticentromere Antibodies on Oocyte Maturation and Embryo Cleavage

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## **Abstract**

Several studies have reported that antinuclear antibodies (ANA) are related to adverse reproductive events. The purpose of this study was to investigate the clinical significance of anticentromere antibodies (ACA) among types of ANA in patients undergoing IVF and ICSI. The rate of fertilization was significantly decreased and the levels of multipronuclear oocytes were significantly increased in the patients with positive ACA (ACgroup) compared with that observed in the negative ACA (ANgroup) and negative ANA (Cgroup) groups undergoing IVF. Meanwhile, the levels of metaphase II oocytes and rates of fertilization and embryo cleavage were significantly decreased and the multipronuclear rate was significantly increased in the ACgroup compared with the ANgroup and Cgroup in the patients undergoing ICSI. These data suggest the ACA adversely affects the results of ART in infertile females.

**Key words: Antinuclear antibody, anticentromere antibody, fertilization rate, multipronuclear, ART**