

Decreased anti-Müllerian hormone concentration in follicular fluid of female smokers undergoing artificial reproductive techniques

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Background: Several reports indicate that women who smoke have an increased risk of failure to conceive compared with their non-smoker counterparts. Here, we assessed the effect of smoking during the Assisted Reproduction Therapy (ART) on a potential marker of ovarian reserve, anti-müllerian hormone (AMH) in the follicular fluid (FF). **Materials and Methods:** This was a cohort prospective study to assess the association between cigarette smoking and AMH concentrations in FF in fifty-six women undergoing their first ART cycle. Self-reported smoking status over time was also collected through personal interview. The main outcome measured was the association between current smoking and AMH concentrations in FF. Smoking status was assessed by FF cotinine concentrations. Analysis of covariance was performed to test statistical interaction between the main outcome and confounders. **Results:** The mean concentration of AMH in follicular fluid was significantly decreased among smokers (1.02 ± 0.14 vs