

## I12-1003

### **Does coffee consumption reduce the chance of pregnancy and live birth in IVF**

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**Introduction** Caffeine has been shown to consistently increase time to pregnancy and the risk of early miscarriage. However, hardly any studies are available on the effect of caffeine on results in IVF. The aim of this study was to examine the effects of coffee consumption during IVF and ICSI treatment on clinical pregnancy rate and live birth rate.

**Material and methods** - A prospective follow-up study of 3959 IVF and ICSI cycles in women undergoing treatment with IVF or ICSI at a large public clinic in Denmark. Information on coffee consumption (cups per day) was obtained at the beginning of treatment and for each subsequent treatment cycle. Multivariate logistic regression analyses were performed, controlling for female age, female smoking habits and alcohol consumption, reason for treatment, female body mass index, FSH dose, and number of embryos retrieved. Robust standard errors were computed taking into account the non-independence of consecutive cycles in the same couple.

**Results** - Consumption of > 5 cups of coffee reduced the clinical pregnancy rate by 50% (RR=0.50 (95% CI: 0.26-0.97)) and the live birth rate by 40% (RR=0.60 (0.30-1.20)). No effect was observed for intake of 1-5 cups per day. Restriction to first treatment cycles only did not alter the conclusion.

**Conclusion** - In this study, the effect of consuming >5 cups of coffee per day was comparable to the detrimental effect of smoking, reducing the clinical pregnancy rate by 50%.