

# Infertility Treatment and Oral Health

## Study suggests that the chronic bacterial infections found in periodontal diseases may affect reproduction success and the outcome of infertility treatment

CHICAGO – June 22, 2004 – Researchers found that women undergoing ovulation induction for infertility treatment for more than three menstrual cycles experience higher gingival inflammation, bleeding and gingival crevicular fluid (GCF). This study appeared in the recent issue of the *Journal of Periodontology*

### Abstract

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### The Effects of Ovulation Induction During Infertility Treatment on Gingival Inflammation

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**Background:** Ovulation induction is the most common method of infertility treatment in which the ovaries are stimulated to produce multiple follicles. The aim of this study was to assess the effects of three drug protocols of ovulation induction: clomiphene citrate (CC) alone, CC combined with follicle stimulating hormone (FSH), and CC combined with human menopausal gonadotropin (HMG) on the gingival tissues of women who were undergoing infertility treatment.

**Methods:** Study population was composed of 18 women using CC for three menstrual cycles or less and 16 women using CC for more than three cycles; 21 women using CC-FSH; and 24 women using CC-HMG who had at least four cycles of CC alone the previous year. All subjects were clinically examined for plaque levels (plaque index), gingival inflammation (gingival index), bleeding on probing, and gingival crevicular fluid volume. The results were compared with a control group of 20 women matched for age, education and professional level, and oral habits and who had never used ovulation drugs.

**Results:** Despite similar plaque levels ( $P > 0.05$ ), women using CC for more than three cycles and combined protocols of CC-FSH and CC-HMG had higher levels of gingival inflammation ( $P < 0.01$ ,  $P < 0.001$  and  $P < 0.001$ , respectively), bleeding ( $P < 0.001$ ), and GCF volume ( $P < 0.001$ ) when compared to the control group and to the users of CC for three cycles or less

**Conclusions:** The results of this study have shown that ovulation induction, which is the most common method in the management of infertility, exacerbates gingival inflammation, bleeding, and GCF volume and that the duration of the usage of these drugs is strongly associated with the severity of gingival inflammation. *J Periodontol* 2004;75:805-810.