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**Analysis of effective factors for intrauterine insemination outcome in male infertility by using logistic regression**

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Intrauterine insemination is frequently used in the treatment of infertile couples before proceeding to more expensive and invasive methods such as conventional *in vitro* fertilization or intracytoplasmic sperm injection. This retrospective study aimed to evaluate the prognostic factors of the semen parameters that may affect the success rates of intrauterine insemination combined with ovulation induction stimulated by clomiphene citrate.

The study was conducted between 2008-2010 at the infertility outpatient clinic in Zekai Tahir Burak Hospital, in Turkey. 438 couples with diverse causes of infertility underwent 554 cycles of intrauterine insemination. Couples received a maximum of six cycles for treatment of anovulation or unexplained infertility. Serious male factor such as severe oligozoospermia and/or asthenozoospermia was excluded from study during pretreatment stage. The features of cycles and outcomes of patients were recorded for each insemination.

The descriptive statistics for the overall pregnancy rate per cycle was 18.4%(102/452). Backward LR stepwise logistic regression analysis was performed on semen parameters which were sperm motility, total motile sperm count, sperm concentration and sperm morphology. It identified only one significant male variable which was sperm concentration ( $p < 0.05$ ). The odds ratio value of sperm concentration  $> 40$  million spermatozoa/ml was 0.97 (95% CI, 0.96, 0.98) for male factor respectively. We conclude that in a selected homogenous group of males without serious male factor and women with unexplained infertility or ovulation problems with normal ovarian response, following CC stimulation and intrauterine inseminations cycles, sperm concentration has found to be the most effective value to predictive of pregnancy.

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**Biography**

Tugba Kurt has completed her MSc at the age of 33 years in Biostatistics and Medical Informatics from Karadeniz Technical University. She is a PhD student of Karadeniz Technical University, Faculty of Medicine and working as a Statistician at Karadeniz Technical University, Farabi Hospital. Furthermore, she is working in a project which is about gestational diabetes, supported by The Scientific and Technological Research Council of Turkey.

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