

## Determination of the effective clinical factors on successful infertility treatment using ICSI for spinal cord injured

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### Abstract

**Introduction:** Physicians and gynecologists have always attempted to treat the infertility problems of infertile couples. Spinal cord injuries above pelvic region affect male reproductive system and may cause infertility. Iran has one of the most common spinal cord injuries due to the recent war. Unsuccessful treatment of infertile war victims may cause psychological and other problems and it is thus, needed to identify the effect of different factors on successful infertility treatments.

**Materials and Methods:** In this retrospective study, data from 381 infertile couples with male impotency due to spinal cord injury who referred to Koassar Fertility and Impotency Center in Tehran during 2000 till mid 2002, were collected. The data were observed with regard to Urology, Gynecology, and Laboratory for each treatment cycle and period by the professional staff. All the medical terms were recorded to be used in SPSS. Chi-square and multiple logistic regression analysis were used to analyze known predictors of pregnancy and psychological factors and their relationship with treatment outcome.

**Results:** A significant relationship was observed between successful outcome of ICSI: (pregnancy) with infertility duration ( $P=0.049$ ), percent of injury ( $P=0.018$ ), type of catheter used ( $P=0.021$ ), abnormal sperm parameters ( $P=0.001$ ) and type of infertility (male factor, female factor and unexplained) ( $P=0.025$ ).

**Conclusion:** Despite the sperm count in spinal cord injured is similar to that in normal men, their sperm motility and morphology is significantly reduced and thus, their infertility treatment success rate is low. The study also showed that the success rate of treatment with ART techniques reduced with duration of infertility.

**Key Words:** ICSI, Spinal Cord Injury, Infertility, Sperm motility, and ART.

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