INFLUENCE OF SPERM DNA DAMAGE ON PREGNANCY AFTER IVF AND ICSI: A PROSPECTIVE STUDY

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INTRODUCTION
Sperm DNA damage is common in infertile men and has been associated with reduced pregnancy rates in IVF. We sought to further examine the relationship between sperm DNA damage and pregnancy rates after IVF and ICSI.

METHODS
A prospective study was performed on 60 infertile couples undergoing IVF and/or ICSI at a single fertility clinic. A small aliquot of whole semen was taken from the sample to be used for IVF and ICSI; assessment of standard semen parameters and sperm chromatin structure assay (SCSA) parameters (%DFI - DNA fragmentation index and %HDS - high DNA stainability) was conducted. Couples were sub-grouped according to the sperm %DFI results: Group 1: 0-15%; Group 2: >15%. All couples gave signed informed consent prior to participation in the study.

RESULTS
There were no significant differences in the 2 groups with regard to patient age, day 3 FSH, sperm parameters or fertilization rate. The biochemical and clinical pregnancy rates were higher in Group 1 than Group 2 but the differences were not significant.

CONCLUSIONS
These preliminary data suggest that sperm DNA damage can adversely impact on clinical pregnancy after IVF and ICSI.

REFERENCES