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Abstract Category: 25. Procedures and Techniques-Laboratory: ART (SART)
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Poster presentation only? No
Are you a fellow in training in an American Board of Obstetrics and Gynecology approved program leading to certification in Reproductive Endocrinology and Infertility? No
Data is submitted for a separate scientific abstract and video presentation: No

Awards:
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Accept Complete Responsibility: I accept complete responsibility for the data at the time of submission.

Title: ASSOCIATION OF SPERM MORPHOLOGY ASSESSED BY SPERM DEFORMITY INDEX WITH SPERM DNA INTEGRITY/ MATURITY IN MALE INFERTILITY
Objective: Sperm morphology is the corner stone of sperm selection for intracytoplasmic sperm injection (ICSI) in male factor infertility. Sperm DNA maturity/ integrity is crucial for male fertility management. Our aim was to evaluate sperm deformity index (SDI) in relation to sperm DNA integrity and pregnancy outcome in couples undergoing ICSI.

Design: Prospective-controlled study.

Materials and Methods: Semen samples were collected from 42 infertile men with no female factor. Sample was prepared for ICSI. The remaining sample was divided into multiple aliquots and evaluated for count, motility and morphology by sperm deformity index (SDI) according to the WHO guidelines. Another aliquot was used for examining sperm condensation/ maturity by DNA cytometry, maturation by aniline blue staining. Patients were divided into group I = SDI <1.6 (normal) and group II = SDI >1.6 (abnormal). Pregnancy test was done after 2 week after embryos transfer.

Results: Pregnancy occurred in 38.1% (8/21) of partners with normal SDI and in 61.9% (13/21) of men with abnormal SDI. No significant difference was seen in SDI in pregnant (1.82 ± 0.1) vs. non-pregnant (1.75 ± 0.2) groups. Similarly, no significant differences were seen between group I vs. group II regarding the %haploid or subhaploid sperm or aniline staining.

Conclusions: Sperm deformity index does not reflect sperm DNA maturity/ integrity status. Both tail or midpiece defects are included in calculating the SDI score. Tail and midpiece may not play a significant role in ICSI. This may explain its inability in predicting ICSI outcome in male factor infertility.

Support: None

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