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Title:

OPTIMAL SPERM MORPHOLOGY CAN OPTIMIZE REPRODUCTION POTENTIAL IN FEMALES OF ADVANCED AGE DURING IUI PROTOCOLS

Authors:

Jared Winoker, MD^{1,3}, Joseph A. Lee BA¹, Michael C. Whitehouse BA¹, Alan B. Copperman, MD^{1,2} Natan Bar-Chama, MD^{1,3}

Affiliations:

1. Reproductive Medicine Associates of New York, 635 Madison Ave 10th Floor, New York, New York, United States, 10022
2. Obstetrics, Gynecology and Reproductive Science, Icahn School of Medicine at Mount Sinai, 1176 Fifth Avenue, 9th Floor, New York, New York, United States, 10029
3. Department of Urology, Icahn School of Medicine at Mount Sinai, 5 E 98th St, 6th Floor, New York, New York, United States, 10029.

Introduction and Objective:

Most couples routinely pursue an intrauterine insemination (IUI) protocol to treat infertility; and its success is dependent on ovulation induction and seminal parameters. Previous published studies have suggested a cut-off percent for sperm morphology, yet little research has focused on the relationship between sperm morphology, female age, and IUI pregnancy potential. This study sought to define the effect of percent normal sperm morphology in IUI protocols.

Methods:

In this retrospective study couples undergoing an IUI cycle were reviewed. Sperm morphology scores were determined via Kruger's strict criteria. Male partners were segregated by percent normal sperm morphology. Females were segregated by age (A: <35, B: 35-37, C: 38-40). Females cohorts not surpassing >50 IUI attempts were excluded from the analysis. Pregnancy rates (PR) were determined by the presence of bHCG circulation in the blood stream (positive bHCG).

Results:

IUI cycles (n=23,035) that met the study's inclusion criteria were evaluated. Overall, 4,019 IUI protocols resulted in achieving a positive pregnancy outcome (PR: 17.45%). In females <35, pregnancy rates rose steadily (PR: 13.4-24.3%) as percent of normal sperm morphology increased (% Normal Sperm: 1-11%). A similar trend was observed in older female cohorts

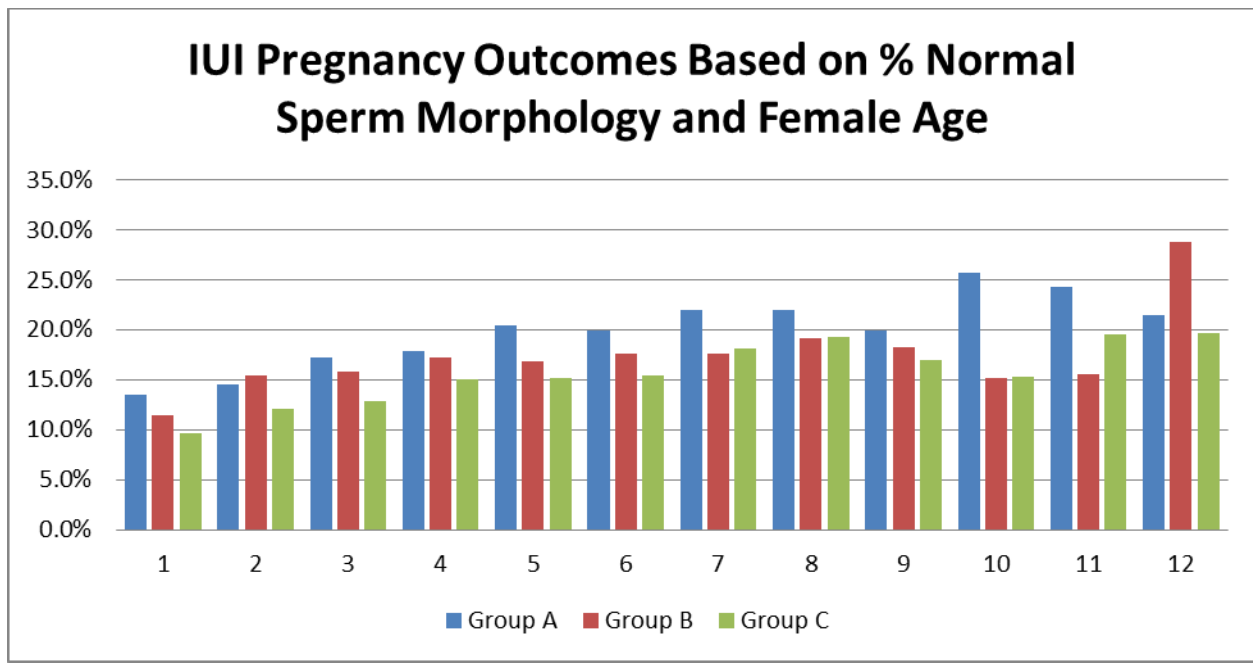


(Age: 35-37; 38-40), albeit at a lesser degree (PR: 11.4-19.1%; 9.6-19.5% respectively) than the youngest cohort.

Conclusions:

Female age and sperm morphology have an influence on IUI pregnancy potential. This study demonstrated that females of advanced age can utilize an IUI approach, yet their cycle's chances of success appear to be enhanced in the presence of higher percentages of normal sperm morphology. Younger patients who pursue IUI appear to have a greater reproductive potential regardless of sperm morphology, as long as total motile counts remain above minimal standards.

Chart:



Support:

None