



Effect of Vaginal Lubricants on Sperm Motility and Chromatin Integrity: A Prospective Comparative Study

Fertility & Sterility, 2008 Feb;89(2):375-379 Agarwal A, Deepinder F, Cocuzza M, Short R A, Evenson DP. Reproductive Research Center, Glickman Urological Institute and Department of Obstetrics-Gynecology, Cleveland Clinic, Cleveland, Ohio.

Objective: To evaluate the effect of vaginal lubricants Pre~Seed, FemGlide, Astroglide, and Replens on human sperm motility and chromatin integrity.

Design: Prospective, comparative, in vitro study.

Setting: Andrology laboratory at tertiary care hospital.

Patient(s): Thirteen normozoospermic donors.

Intervention(s)

Semen samples from 13 subjects were incubated in human tubal fluid media (HTF) controls and 10% (vol/vol) of Pre~Seed, FemGlide, Astroglide, and Replens lubricants. After 30 minutes, progressive sperm motility was assessed by light microscopy. Semen samples of 12 patients were placed in positive control (HTF), negative control (10% K-Y Jelly lubricant), and 10% vol/vol Pre~Seed and FemGlide lubricants. After 4 hours culture, spermatozoa were analyzed for percent DNA fragmentation index with use of the acridine orange-based sperm chromatin structure assay.

Main Outcome Measure(s)

Sperm motility and percent DNA fragmentation index.

Results

Percent motility did not differ significantly between HTF controls and Pre~Seed, whereas FemGlide, Replens, and Astroglide lubricants demonstrated a significant decrease in motility. There was no significant difference in percent DNA fragmentation index between the HTF controls and Pre~Seed, but a significant decline in sperm chromatin quality occurred with FemGlide and K-Y Jelly.

Conclusion

Pre~Seed does not cause a significant decrease in progressive sperm motility or chromatin integrity in contrast to other lubricants used by couples.