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Establishment of TEST-yolk buffer enhanced sperm penetration assay limits for fertile males.

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TEST-yolk buffer has been shown to enhance sperm penetration of zona-free hamster eggs. Review of sperm penetration assay (SPA) data from a fertile population was undertaken to determine a normal range for SPA with TEST-yolk buffer enhancement. Thirty-eight intrauterine insemination patients and 4 artificial insemination donors who had successfully initiated a pregnancy within 18 months of SPA analysis were examined. All 42 enhanced SPAs demonstrated penetration of greater than 10%, and 37 of these (88%) yielded SPA values of greater than or equal to 20%. Thirty-three percent (14/42) of these individuals achieved 0% penetration in the SPA without TEST-yolk buffer. The SPA performed with the TEST-yolk modification has fewer false negatives than the assay done with the original methodology.

PMID: 2358079 [PubMed - indexed for MEDLINE]

Related Links

Analysis of TEST (TES and Tris) yolk buffer effects on human sperm. [Fertil Steril. 1995] PMID:7720919

TEST-egg yolk buffer storage increases the capacity of human sperm to penetrate hamster eggs in vitro. [Int J Androl. 1987] PMID:3610360

The effect of preincubation of human spermatozoa in milk on sperm penetration into zona-free hamster oocytes and on sperm binding to the human zona pellucida. [Fertil Steril. 1994] PMID:8005285

Prediction of in vitro fertilization outcome by sperm penetration assay with TEST-yolk buffer preincubation. [Fertil Steril. 1992] PMID:1521652

A prospective analysis of the accuracy of the TEST-yolk buffer enhanced hamster egg penetration test and acrosin activity in discriminating fertile from infertile males. [Hum Reprod. 1998] PMID:9756280