A clinical study comparing PureSperm and SpermFilter for density gradient separation of human spermatozoa in assisted reproduction

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Objective. To compare a new density gradient medium, SpermFilter, for purifying spermatozoa in assisted reproduction with the more established medium, PureSperm.

Design. Part 1, a multicenter study on 225 semen samples purified using either PureSperm (115 semen samples) or SpermFilter (110 semen samples). Part 2, a retrospective, single center study on a total of 898 assisted reproductive cycles (245 insemination cycles using husband semen, 58 insemination cycles using donor semen and 595 in vitro fertilization/intracytoplasmic sperm injection (IVF/ICSI) cycles.

Setting. Part 1, three fertility clinics in Denmark (two university-affiliated fertility clinics and one private clinic). Part 2, one university-affiliated fertility clinic in Denmark.

Main outcome parameters. Part 1, purity of purified spermatozoa (% motile), motility index and recovery of motile spermatozoa. Part 2, malformation and baby take-home rates (insemination cycles), fertilization, cleavage, implantation, malformation and baby take-home rates (IVF/ICSI cycles).

Results. No statistical differences were observed in any of the parameters investigated.

Conclusion. SpermFilter is a valid alternative to PureSperm in assisted reproduction technology (ART).

Key words: SpermFilter; PureSperm; semen processing; spermatozoa purification

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