

Intentional cryopreservation of epididymal spermatozoa from percutaneous aspiration for dissociated intracytoplasmic sperm injection cycles

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摘要

Abstract

Background. To investigate the possibility of cryopreservation of spermatozoa obtained from percutaneous epididymal sperm aspiration (PESA) in patients with obstructive azoospermia and the feasibility of intentional dissociation of PESA and intracytoplasmic sperm injection (ICSI) cycles. Methods. Fifty-six patients with obstructive azoospermia underwent diagnostic PESA before ovarian stimulation. If spermatozoa were found, they were frozen for subsequent ICSI. The outcome was compared with 17 fresh PESA/ICSI cycles. Results. Among the 56 patients, diagnostic PESA obtained spermatozoa in 51 patients. The mean motility of the spermatozoa decreased from 15.2% to 4.2% after freezing and thawing. These patients underwent 96 frozen PESA/ICSI cycles. The rates of fertilization, implantation and clinical pregnancy for frozen-thawed spermatozoa (71.6, 14.0 and 40.6%, respectively) were similar to those for fresh spermatozoa (69.2, 13.2 and 41.2%, respectively). Conclusions. Sufficient numbers of spermatozoa can be obtained for cryopreservation through PESA and the spermatozoa work well after thawing. The strategy of performing diagnostic PESA before ovarian stimulation and freezing the recovered spermatozoa for subsequent ICSI is feasible for patients with obstructive azoospermia.