

Pregnancy with a globozoospermic partner – the role of sperm morphology in ART outcome

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Abstract

Introduction: Intracytoplasmic sperm injection (ICSI) is the only therapy of choice for couples presenting with teratozoospermia. Globozoospermia, a severe form of teratozoospermia, is generally characterized by a lack of or severely malformed acrosome, which is considered indispensable for the fertilization process. Therefore, this may cast doubt on the effectiveness of conventional ICSI for this group of patients. Despite of all of the scientific evidence published so far regarding globozoospermia, there is still an unanswered question whether it reflects the true picture or it is just the tip of the iceberg. This study aims to retrospectively investigate the success rate of Artificial Reproduction Techniques

Materials and methods: Totally 11 couples with total globozoospermia (90-100%) were included in the study who met the following recruiting criteria: couples with male factor infertility who opts for infertility treatment by artificial reproductive technology (ART) for biological parenthood. The cohort underwent a total of 12 ART cycles that 75% (9/12) of them followed by embryo transfer (ET). The mean age of included couples were 33.8±5.0 and 29.6±4.2, for men and female, respectively.

Results: Of a total of 20 ET (7 frozen and 13 fresh), the implantation rates were 14.3% (1/7) and 23.1% (3/13), for frozen and fresh ET cycles, respectively. The clinical pregnancy rate per ET were the same (33.3%) for frozen and fresh cycles. Live birth rate per initiated cycles, per ET and per patients were 25% (3/12), 27.3% (3/11), and 33.3% (3/9), respectively.

Discussion: Our data show that conventional ICSI is an adequate treatment for patients with high percentages of globozoospermia and their fertilization rate, pregnancy, and live birth are similar to the general ICSI population in our center. These patients should be reassured that they have a chance to father a child.