Semen sample collection in medium and implantation rate following ICSI

Dear Sir,

The paper by Zollner et al. (2001) caught our attention, because it claims that a minor handling step in the sperm collection has an effect on the outcome of ICSI in all oligoasthenoteratozoospermic patients. We were immediately struck by the extremely low \( P \) values both for implantation and clinical pregnancy between groups A and B, particularly because both groups were limited in size. Checking the \( \chi^2 \) test for a pregnancy rate per transfer of 10/55 (18.2\%) in group A versus 16/59 (27.1\%) in group B resulted in a non-significant \( P \) value of 0.37 which is quite different from the authors’ \( P \) value of < 0.001. Confidence interval analysis of the same data leads to an OR of 0.597 and a 95\% CI of 0.244 to 1.460.

It was not possible to extract the exact number of transferred and implanted embryos from the data in the article. If the mean number of transferred embryos per cycle of 2.67 for all 114 cycles is the same in both groups, we can calculate that of 304 embryos transferred in total, 147 belonged to group A yielding 10 implantations (6.9\%) while 157 belonged to group B resulting in 16 implantations (9.9\%). \( \chi^2 \) test of implantation in both groups produces a non-significant \( P \) value of 0.3958, substantially different from the authors’ \( P \) < 0.0001 (Table II).

We conclude that, on the basis of the data presented by the authors, they cannot make any statistically supported conclusions on the impact of sperm sample collection in medium on the ICSI results in these patients.

References


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Dear Sir,

We have published the results of a prospective randomized controlled trial (RCT) on the implantation and pregnancy rates following ICSI, comparing the effect of ejaculation in medium (group B) versus that in dry pots (group A) and subsequent conventional swim-up procedure (Zollner et al., 2001). Both the implantation rate per embryo transferred (9.9\%) and the pregnancy rate per transfer (27\%) were higher in group B than in group A (6.9 and 18\% respectively). However, in contrast to the statistical calculations made in the paper, these differences do not reach statistical significance (\( \chi^2 = 0.87 \) and 1.29, NS), and we are grateful for the comment made by Van Royen and Gerris in detecting this error. We would like to add that the implantation rates in each group were calculated from the following figures: in group B, 16/161 embryos transferred led to a successful implantation versus 10/144 embryos in group A.

Despite the lack of statistical significance, probably due to the small sample size (\( n = 55 \) and \( n = 59 \)), the observed difference in implantation and clinical pregnancy rates calls for confirmation in another RCT with sufficient statistical power.
Letters to the Editor

References

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