SUCCESSFUL CLINICAL OUTCOMES AFTER LONG DISTANCE ROUND-TRIP TRANSPORT OF GAMETES AND EMBRYOS IN AN IVF/ICSI PROGRAM

H. Michgelsen\textsuperscript{1}, E. Unterhorst\textsuperscript{1}, M. Scholtes\textsuperscript{2}, M. Nijs\textsuperscript{1}, H. Ruis\textsuperscript{1}

\textsuperscript{1} Stg Geertgen, Fertility Treatment Centre, Pater Rossaertstraat 3, 5424 TG Elsendorp, The Netherlands
\textsuperscript{2} Medizinisches Versorgungszentrum Interdisziplinäres Kinderwunschzentrum, Düsseldorf, Germany

Background: Round-Trip IVF transport (R-TIT) consists of long distance transport of gametes from a satellite clinic to a central laboratory for IVF/ICSI, followed by return transport of fertilised oocytes for transfer to the patient, as well as return transport of frozen or thawed supernumerary embryos.

Aim: To evaluate clinical outcomes of an R-TIT program for a large cohort of IVF/ICSI cycles.

Methods: This retrospective study includes all IVF/ICSI cycles with fresh embryo transfer and all frozen/thawed embryo transfer cycles performed at The Geertgen Foundation (Elsendorp) and the central clinic in Düsseldorf (Medizinisches Versorgungszentrum Interdisziplinäres Kinderwunschzentrum) during the first semester of 2012. Clinical pregnancy rates (CPR) and multiple pregnancy rates (MPR) were compared to the 2010 National IVF Register of the Netherlands (NIVF) (Chi square test).

Results: 352 fresh IVF/ICSI cycles were undertaken resulting in a 23% OPR per oocyte retrieval and 24.3% OPR per transfer, similar to those of NIVF (22.7%; 25.7% resp.); MPR in the fresh R-TIT (6.1%) was comparable to the MPR of NIVF (10.7%).

411 embryo freeze/thaw cycles were initiated. 565 out of 801 embryos (70.5%) were viable after thawing and used for transfer. Again a comparable OPR and MPR was noted (15.8%; 6.1% resp.) for the frozen R-TIT program versus NIVF (15.7%; 4.6% resp.).

Conclusion: Present study demonstrates the successful clinical outcomes of a Round-Trip IVF transport system on a large cohort of patients undergoing IVF/ICSI treatments.