

P-039 Sperm chromatin integrity in relation to clinical pregnancy rate in an egg donation program

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Study question: Is DNA Fragmentation Index (DFI) determinant in clinical pregnancy rate (CPR) after ICSI?

Summary answer: DFI is determinant in CPR after ICSI

What is known already: Male fertility evaluation often leaves the clinician in uncertainty. Semen analysis is a basic examination, but insufficient. Sperm DNA is in a compact state, and its integrity is observed to be related to reproductive capacity

Study design, size, duration: A retrospective, single center study, in 65 couples underwent egg donation, ICSI and blastocyst transfer, evaluating DFI and its effect on CPR. This study was carried out since September 2017 to March 2020

Participants/materials, setting, methods: DFI was evaluated using Sperm Chromatin Dispersion test (SCD) and considering 20% or below as normal. We performed ICSI in donated eggs, cultured until blastocyst stage and transferred 1 to 3 embryos. CPR was defined as the number of patient with fetal heart beats presents in relation with the number of patients with embryo transfer. We determined CPR in both groups with normal and abnormal DFI. Fisher exact test was used to analyze the differences.

Main results and the role of chance: From these 65 couples, in 29 male partners had normal DFI and 36 abnormal. CPR was 68.97% in the first group and 41.67% in the second ($p = 0.0448$)

Limitations, reasons for caution: The small number of patients is a limitation

Wider implications of the findings: The results permit us to know more male patients, to consider DFI as an important variable and to prepare better our patients for procedures.

Trial registration number: 00012