

Comprehensive chromosome screening (CCS) improves IVF outcome in recipients suffering recurrent implantation failure (RIF) and pregnancy loss (RPL)

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The high incidence of chromosomal abnormalities in gametes and preimplantation human embryos could explain the low success rates of IVF treatment. The development of techniques for Complete Chromosomal Screening (CCS) has provided important information about the chromosomal structure of the embryos. This new technology applied as a method of embryo selection, can improve the success rates of assisted reproduction techniques, since only chromosomally normal embryos are transferred to the womb allowing improving the newborn at home rates and reduce the miscarriages rate. Especially in patients suffering implantation failure or repeated miscarriage, when in more than 50% are due to genetic causes.

In this research we have studied chromosomal abnormalities in embryos of egg donation recipient patients suffering repeated miscarriages or implantation failure. To do this, we analysed the results of 200 embryos biopsied by CCS on the 5th day (blastocyst stage).

As the main results we have observed differences in the percentage of aneuploidy, being higher (34.5%) in the group embryos from patients suffering repeated miscarriages or implantation failure compared to 24.3% in the embryo from patients in the control group. It also shows as the pregnancy rate (68.5%) and the implementation rate (54.3%) in patients with repeated miscarriages and implantation failures using the complete chromosomal screening reaches the same values as in patients of the control group.