

IMPACT OF A-CGH IN PGD-AS FOR PATIENT SUFFERING FROM RECURRENT IVF FAILURE

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The success rate of pregnancy achieved as a result of Assisted Reproductive Technology (ART) does not exceed 50%. This is particularly true in patients where all parameters that could potentially affect such a result, including; female age, male sperm quality and optimal ART setting are excluded. It is well known that the chromosomal contribution to the failure of pregnancy is major. The last decade witnessed an important focus on the role of chromosomal abnormalities in ART success. After studying a number of randomized trials, two main conclusions were deduced; firstly to recognize that chromosomal abnormality in embryos largely contributes to a low pregnancy rate. Secondly, to appreciate the importance of chromosomal screening in producing better pregnancy results. Along with these conclusions, we focused our effort on the analysis of the entire chromosome sets of single blastomere in Preimplantation Genetic Diagnosis (PGD). We optimized the Array-Comparative Genome Amplification A-CGH on single blastomere by detecting most of the cell chromosomes using the agilent platform. Patients with 7 or more recurrent IVF failures were recruited for PGD using A-CGH. Over 30 patients have been so far analyzed with many ongoing pregnancies. Details of the results and the different procedure enhancing methods will be presented and discussed.