

PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) - SHOULD IT BE A UNIVERSAL OR SPECIFICALLY INDICATED APPLICATION?

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PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) - SHOULD IT BE A UNIVERSAL OR SPECIFICALLY INDICATED APPLICATION? The success of Assisted Reproductive Technology (ART) has remained largely challenging with a need to increase implantation and live birth rates. In that context, preimplantation genetic testing for aneuploidy (PGT-A) has been debated upon in accordance with these goals. Our aim was to evaluate the efficiency of PGT-A on the outcome of ART in infertile women using randomized clinical trials. We studied two groups of women who were demographically identical with history of previous IVF and recurrent implantation failures to assess if PGT-A (group A) or our standard protocol of sequential transfer (group B) helped to improve their outcomes. A third group (C) was used as control, comprising of 125 women (idiopathic infertility) who underwent their first IVF cycle after conventional IUI failures. The study group (A) (n=122) were subjected to PGT-A and the control group (B) (n=123) were subjected to standard sequential protocol (1 or 2 day 3 embryos coupled with 1 blastocyst). Chi-square and logistic regression findings were used to find the statistical significance (significant at $0.01 < P \leq .050$) between the control (B) and the PGT-A (A) treated group. Demographic characteristics were found statistically insignificant indicating no bias in sample selection between the two groups. However, we found clinical pregnancy rate ($p= 0.033$) and live birth rate ($p= 0.026$) were statistically significant between the control (B) and test groups (A) signifying the improved effect of PGT-A giving a +13% improved chances. But, when one compared the PGT-A group (A) along with the idiopathic infertility group (C), no satisfying significant differences was seen in clinical pregnancy and live birth rate, hence concluding that PGT-A may help to improve pregnancy outcomes in specifically indicated population.