Comprehensive chromosome screening (CCS) increases the implantation rate in advanced maternal age.

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The study analyses the results of array-CGH of 195 blastocysts from 62 IVF cycles. The main indications for performing the Complete Chromosomal Screening on embryos were, advanced maternal age and male factor in most cases, followed by repeated miscarriages and implantation failure. Of all embryos analyzed (mean of 3.9 embryos per cycle), 48.7% were aneuploidy, and 64% of these had only an altered chromosome.

The most revealing finding of this descriptive analysis is that it has been shown that maternal age (mean age 36.2 years) is correlated with a significant increase in the rate of embryonic aneuploidy, however after performing the array-CGH technique to select the chromosomally normal embryos, no differences between the implantation rate and maternal age (implantation rate of 51.6%) were observed. The selection of euploidy embryos matches implantation rate in women with advanced age and young women.

This work, reveals the Complete Chromosomal Screening as a promising option to improve the results of IVF cycles mainly in patients with advanced maternal age.