P - 138

MICRORNAS IN DAY THREE EMBRYO CULTURE MEDIA AS NON-INVASIVE BIOMARKERS OF IMPLANTATION AND LIVE BIRTH



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miR148

miR-

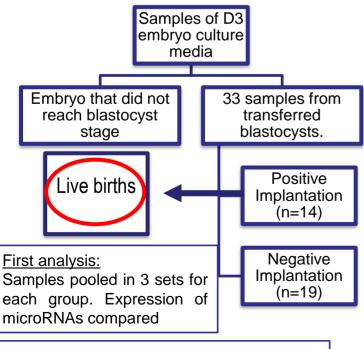
125a

miR-20b

INTRODUCTION

MicroRNAs are small non-coding RNAs that regulate gene expression through mRNA translation. degradation inhibition of or **MicroRNAs** detected in can be the extracellular environment, such as biological fluids and are already used as diagnostic and prognostic markers of several diseases. Therefore, the goal for this study was to identify possible miRNAs biomarkers embryo implantation and live birth, in the culture media of individual in vitro produced embryos

MATERIALS AND METHODS



Second analysis:

Ten more samples tested, to check if miRNAs could be detected in individual samples

miR-21 miRdifferently 142-3p expressed Tested miRNAs miR-92a miR-142-3p Normalized Gene Expression (a.u.)

P<0.001

Positive

RESULTS

No significant diference among the expression of miR-21 e miR-92a

miR-19b

10 non-redundant samples highly specific amplification of mature miRNAs, including miR-142-3p,

CONCLUSION

MiR-142-3p may biomarker of be а failure. The identification implantation specific miRNAs on the culture media offers opportunities for early, fast and cheap diagnosis of implantation, and live birth. This may reduce emotional and financial costs. Moreover, it favors the single embryo transfer, avoiding multiple pregnancies and its consequences.

In conclusion, the miRNA signature may be a tool to predict the embryo implantation and live birth.