P - 184 BLASTOMERE NUCLEARITY: THE INFLUENCE OF BLASTOMERES WITH NO APPARENT NUCLEI ON BLASTOCYST FORMATION AND QUALITY

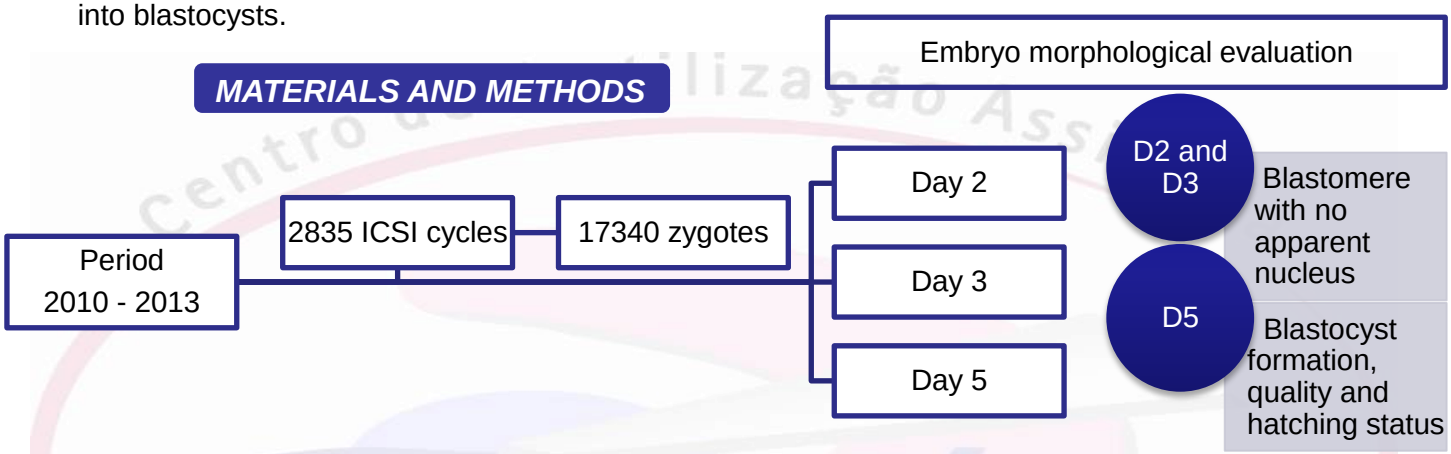
SETTI AS[1,2], BRAGA DPAF[1,2], FIGUEIRA RCS[1], IACONELLI JR. A[1,2], RODRIGUES RS[1], BORGES JR. E[1,2]

[1]Fertility Medical Group; [2]Instituto Sapientiae – Centro de Educação e Pesquisa em Reprodução Assistida

INTRODUCTION

The detection of multinucleation in blastomeres is an important criterion in embryo selection. Multinucleated embryos are related to increased aneuploidy rate and lower blastocyst formation, implantation and live birth rates. However, information regarding blastomeres with no apparent nuclei is scarce. The objective of this study was to investigate if embryos presenting at least one blastomere with no apparent nucleus on the second or third day of development are more likely to fail to develop into blastocysts.

MATERIALS AND METHODS



The presence of blastomeres with no apparent nucleus on days 2 and 3 of development was recorded and associated with blastocyst formation, quality and hatching status using logistic regression.

RESULTS

Influence of blastomeres with no apparent nucleus on days 2 and 3 on blastocyst:

Formation
OR: 0.76
CI: 0-69-0.84

Quality
No influence

Hatching
OR: 0.73
CI: 0.59-0.89

Formation
OR: 0.78
CI: 0.69-0.87

Quality
No influence

Hatching
OR: 0.68
CI: 0.54-0.86

CONCLUSION

One of the most important steps in assisted reproduction is embryo selection for transfer. Although the combination of embryo developmental rate and morphology is noninvasive and easy to perform, the usefulness in predicting pregnancy is questionable. The search continues for additional morphological markers of embryo quality. Careful nuclear observation, taking into account not only the presence of blastomere multinucleation but also the absence of nucleus, should be part of the strategies used for embryo selection.