INTRODUCTION: The improvement in culture media and vitrification has supposed a great advance in the selection of embryos in later stages.

The objective of the study is to compare the perinatal results of pregnancies achieved by ET (embryo transfer in fresh) and those achieved by FET (frozenET), as well as the differences in the implantation capacity.

MATERIAL AND METHODS: Observational retrospective study (2015-2017) in which patients that underwent ART were analysed in the Assisted Reproduction Reference Unit of the Canary Islands. The embryos were cultured in vitro to blastocyst stage and ET (n=81) or FET (n=110) was performed.

RESULTS: Larger βhCG-14-days positive results were obtained in ET group (p=0.027) and higher implantation rate (35.8% vs 24.5%; n.s.). The ongoing pregnancy rate is higher in ET (28.4% vs 15.5%, p=0.030), whereas a higher abortion rate was observed in FET (37% vs 18.8%; n.s.).

No differences were observed between ET/FET in the first trimester screening, nor in the twin incidence (21.7% vs 26.3%), nor in the complications rate.

The type of delivery did not show correlation with ET/FET: cesarean (38.1% vs 40%). The birthweight in FET was significantly higher (3,350.31±490.539g vs 2,996.64±558.11g, p=0.050).

The gender ratio, percentile, gestational age at delivery, APGAR and arterial pH did not vary significantly.

CONCLUSIONS: Despite the limitation in the heterogeneity of the studies published up to now, they have shown there are no great differences in perinatal results between fresh ET and FET (Sha, 2018); coinciding with our results. Emphasise that the birthweight was significantly higher in the FET group in accordance with the Sha meta-analysis.