

P117. Endometrial thickness and embryo quality in predicting the outcome of icsi and embryo transfer: a retrospective cohort study

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Introduction: The effectiveness of In vitro fertilization/Intra-cytoplasmic spermatozoa injection –Embryo transfer (IVF/ICSI-ET) is dependent on the creation of an embryo in vitro and implantation to occur upon placement in the uterus. Therefore, this research was to study the effect of embryo quality and endometrial thickness in predicting pregnancy.

Methods: A retrospective cohort study conducted in Reproductive Unit, Hospital Sultanah Bahiyah, Malaysia inclusive of all patients who underwent IVF/ICSI-ET for 3 years duration. For embryo quality, patients were divided into two groups based on age (year): <35 and ≥35. The rate of clinical pregnancy was compared when 0 to 3 good quality embryos were transferred. Endometrial thickness was measured on oocyte retrieval day. The measurements were divided into three groups depending on the thickness: Group 1: < or equal to 7mm; Group 2: >7 to < or equal to 14mm; Group 3: >14mm.

Results: The mean of embryo quality was significant IVF outcome (OR 2.56; p-value<0.05). In women ≥ 35 years, transfer of one good quality embryo has 3.1% chances of pregnancy as compared to 6.7% and 16.2 % chances of pregnancy upon transferring 2 and 3 good quality embryos, respectively (p<0.05). However, in women < 35 years of age, the chance of achieving pregnancy is 12% when one good quality embryo was transferred, with no apparent advantage in transferring 3 instead of 2 good quality embryos, as the percentage of achieving pregnancy is 31.1% and 34.6%, respectively. In this study, endometrial thickness does not appear to have a significant impact on the IVF outcome, with the p-value of 0.58.

Conclusion: The embryo quality, but not endometrial thickness, has the significant effect on the prediction of pregnancy. For women < 35 years, it is advocated to transfer 2 good quality embryos with 31.1% chance of successful pregnancy and 23.1 % risk of multiple pregnancies. In women ≥ 35 years old, clinicians are recommended to transfer 3 good quality embryos with 26.3% chance of pregnancy; although a third of successful pregnancies are multiple in number, consideration must be given to the age factor and long waiting treatment period.

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