AMH IS USEFUL TO PREDICT IVF/ICSI OUTCOME, OOCYTE MATURATION AND EMBRYO QUALITY

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Introduction: Antimüllerian Hormone (AMH) is useful to predict IVF/ICSI outcome, but the relationship with embryo quality is controversial. Our objective is to evaluate the relationship between AMH and IVF/ICSI outcome, oocyte maturation and embryo quality.

Method: Retrospective data analysis, 807 IVF/ICSI cycles. The study of serum AMH was requested when suspected poor reserve. AMH values were divided into three groups: low (<1ng/ml), intermedium (1-2ng/ml), high (>2ng/ml). The outcome variables were clinical pregnancy rate (CPR), implantation rate (IR), mature oocytes (MII), average of total embryos in each group and proportion of patients with 2 or more good quality embryos (GQE) for transfer.

Results: The CPR was significantly higher in medium and high compared to low group (37,2% and 37%, vs 28,1%, p<0,0001). There were no differences in IR between groups, but there is a trend toward higher IR in intermedium and high groups (17,9% and 17,1% vs 15,8%). AMH was significantly related to proportion of MII (low, 45%; intermedium, 51%; high, 55%; p=0.008), average of total embryos achieved (low=1,6; intermedium=2,3; high=3,4; p>0,0001) and availability of two GQE to replace (low, 18,9%; intermedium,24,4%; high, 33,3%; p=0,0007).

Conclusion: AMH level can be used to predict the outcome of IVF/ICSI cycles. The low AMH group was associated with lower CPR and lower number of total embryos. Higher AMH was also associated with higher proportion of MII and higher proportion of two GQE. This supports that AMH is good regulator of folliculogenesis and oocyte maturation.