

Fertility is severely reduced with increased age of women. This is reflected both in spontaneous pregnancy as well as after fertility treatments. This reduction is mainly due to the decreasing number and quality of primordial follicles.

The mean age of patients seeking fertility treatments has been increasing, but age alone is a weak predictor of the success of IVF treatments. For this reason, assessing the ovarian reserve helps in planning the treatment, counseling the couples and in predicting the ovarian response and the outcome of the treatment.

Various biochemical and ultrasound markers of the ovarian reserve have been used alone or combined in prediction models. Although Anti-Müllerian Hormone (AMH) is considered nowadays the most promising marker, antral follicle count (AFC), is still one of the easiest, economic and practical tests. Both AFC and AMH correlate with each other and with the outcome of IVF treatment in terms of poor response and pregnancy.

We have previously evaluated, like others, that the number of pretreatment follicles can correlate better with the ovarian response and outcome than age alone. Obtaining few oocytes after IVF treatments decreases the chances of pregnancy, independently of age; strategies to obtain good quality embryos may overcome the results of an expected reduced ovarian reserve. Because of the variability of many of the ovarian reserve tests, clinicians rely most frequently on the use of age, AFC and FSH or AMH. Although more accurate measurements can be made from the small antral follicles with 3-D ultrasonography, most of the decisions of clinicians are based on experience and bedside examinations in order to deal with the difficult issue of low ovarian reserve.