Regression model of AMH

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Abstract

Anti-Mullerian hormone (AMH), which is also known as Mullerian inhibitory substance (MIS), is produced in the ovary by granulosa cells in pre-antral and small-antral follicles. AMH is a marker for ovarian reserve and it has been shown to be a good predictor of the number of oocytes retrieved from patiens undergoing IVF. There is a relationship between AMH levels and ovarian response during IVF. Many studies found a high level of correlation between the AMH level and the number of oocytes retrieved. Women with lower levels of AMH have lower count of the antral follicules and produce a lower number of oocytes. Unlike other levels of hormonal biomarkers - FSH, estradiol, inhibin B - AMH has a relatively stable expression during the menstrual cycle therefore the AMH test can be done on any day of womans cycle. Along with the evaluation of the age, basal FSH, inhibin B, antral follicle counts by ultrasound AMH allows much more precise estimate of ovarian reserve - fertility potential, ovarian response and estimates the chances of pregnancy success with IVF treatment. The objective of the study was to determine how AMH levels affect probability of the fertility.

Keywords

Anti-Mullerian hormone, Follicle-stimulating hormone, Logistic regression, Probability of the fertility.