

AGE-RELATED NORMOGRAM OF SERUM ANTI-MULLERIAN HORMONE LEVELS IN POPULATION OF INFERTILE WOMEN: A MULTICENTER STUDY

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Objective: To produce age-related normograms for serum anti-mullerian hormone level (AMH) in non-polycystic ovary (non-PCO) infertile women.

Setting: 15 academic reproductive centers

Design: Retrospective cohort analysis.

Patients: 3871 infertile women.

Interventions: Blood sampling for AMH level.

Main outcome measures: Serum AMH levels and correlation between age and different percentiles of AMH.

Results: Age-related normogram for the 3rd, 10th, 25th, 50th, 75th, 90th and 97th percentile of AMH were produced. We found that the curves of AMH by age for the 3rd to 50th percentiles fit model and appearance of linear relation, while the curves of over 75th percentiles fit cubic relation. There were significant differences in AMH and FSH levels, and AFC between women aged 24 to 33 years, 34-38 years and over 39 years. Multivariate stepwise linear regression analysis of FSH, age, AFC and the type of AMH kit as predictors to AMH level shows that all variables are independently associated with AMH level, at the following order: AFC, FSH, the type of AMH kit, and age.

Conclusion: Age-related normograms in non-PCO infertile women for the 3rd to 97th percentile were produced. These normograms could provide a reference guide for the clinician to consult women with infertility. However, future validation with longitudinal data is still needed.