



STUDY OF OVARIAN RESERVE IN YOUNG INFERTILE WOMEN – AN OBSERVATIONAL STUDY

Authors: Dr. SANGHAMITRA HAZARIKA*, DR. PAPA DASARI*, DR. SAIREM MANGOLNGANBI CHANU*, DR. SHARBARI BASU**

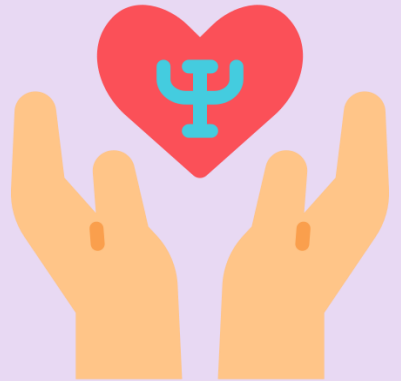
* Department of Obstetrics and Gynecology, JIPMER, Puducherry, 605006

** Department of Biochemistry, JIPMER, Puducherry, 605006



INTRODUCTION

While managing infertile women, it is essential to determine ovarian reserve to choose optimal protocol for ovulation induction. Anti-Mullerian Hormone (AMH) is now established as a test of choice for ovarian reserve, and it is recommended to perform this test after 35 years of age. But in practice, many women less than 35 years of age are found to have low ovarian reserve. Hence it is essential to screen women less than 35 years of age also for poor ovarian reserve.



OBJECTIVE

To determine the proportion and risk factors for poor ovarian reserve in women seeking fertility treatment

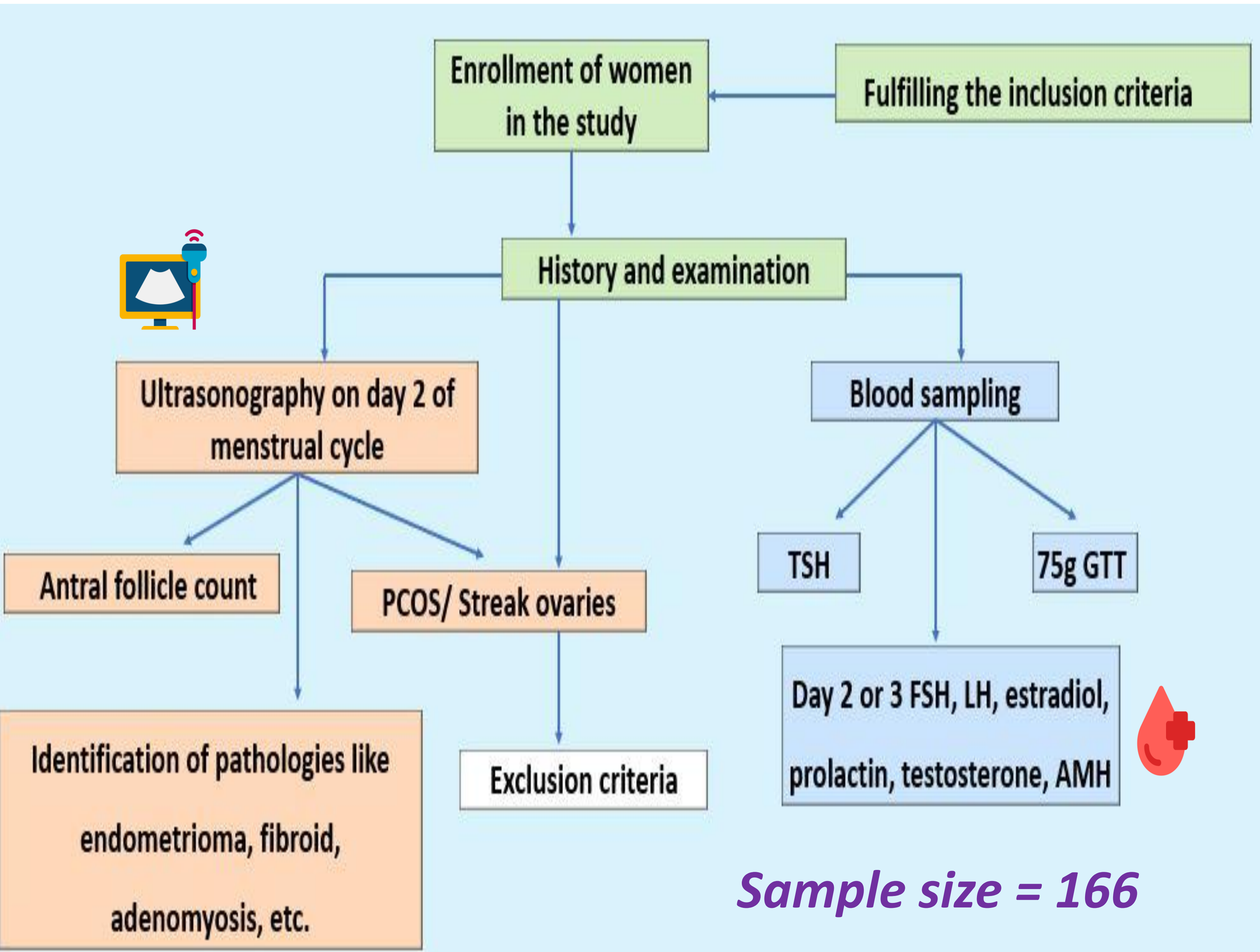
INCLUSION CRITERIA

Infertile women of age more than 21 years and less than 35 years

EXCLUSION CRITERIA

- PCOS with infertility
- Ovarian dysgenesis

MATERIAL AND METHODS



RESULTS

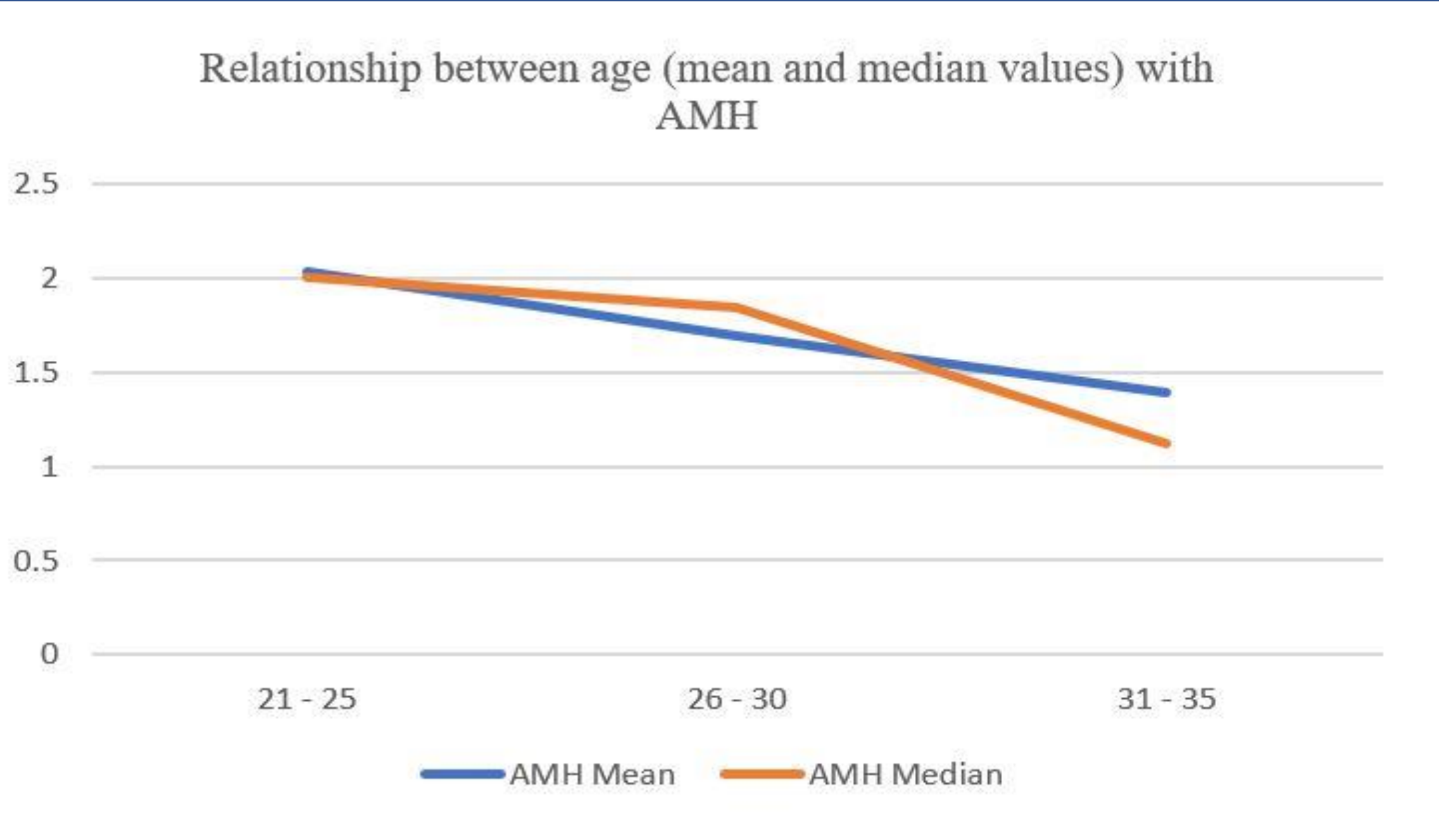
Ovarian reserve as per AMH values	Frequency (n = 166)	Percentage
Severely Low (< 0.3 ng/ml)	12	7.2
Low (0.3 – 0.99 ng/ml)	54	32.5
Normal (1 – 3.5 ng/ml)	100	60.2

MULTIVARIATE ANALYSIS OF RISK FACTORS AND POOR OVARIAN RESERVE

Risk Factors	Adjusted odds ratio	p-value
Age > 30 years and less than 35 years *	1.747 (0.834 - 3.663)	0.139
Endometrioma **	5.869 (2.723 -12.653)	< 0.001
Prior history of ovulation induction of more than 3 cycles *	2.481 (1.201 - 5.123)	0.014
Hypothyroidism *	2.516 (1.048 -6.038)	0.039

* Proposed risk factor for poor ovarian reserve

** Established risk factor for poor ovarian reserve



DISCUSSION

The present study showed that the most common risk factor for developing poor ovarian reserve in the age group of 26-30 years is ≥ 3 cycles of ovulation induction. In women aged between 31 to 35 years, the most common risk factor for developing poor ovarian reserve is endometrioma.

CONCLUSION

Women with these established and proposed risk factors should undergo AMH testing for poor ovarian reserve irrespective of their age. Identifying their association will help us to counsel and treat these patients with specific drugs that may increase the reserve before choosing the ovarian stimulation protocol to achieve ovulation and thus pregnancy.