

**ASSESSMENT OF OVARIAN RESERVE AND
LIPID PROFILE AMONG WOMEN WITH TYPE II
DIABETES MELLITUS**

A THESIS

Submitted by

P SAIKUMAR

(D12MS009)

In Fulfillment for the award of the Degree of

DOCTOR OF PHILOSOPHY

Under the Guidance of

Dr V VATHSALA



(Deemed to be University u/s 3 of UGC Act 1956)

FACULTY OF MEDICINE

(Physiology)

**BHARATH INSTITUTE OF HIGHER EDUCATION AND
RESEARCH,
173, AGARAM ROAD, SELAIYUR, CHENNAI – 600 073**

MAY 2017

CONCLUSION

Our study shows that women with diabetes have prematurely aging, ovaries, as demonstrated by an early decline in the levels of AMH and inhibin B. These findings suggest an earlier decline in the ovarian follicle pool compared with non-diabetic women. This phenomenon most likely occurs at the oocyte-cumulus cell complex and results from damage through several mechanisms. We speculate that a non-immune mechanism may play a role in the patho physiology of this complication. Future studies should evaluate the precise mechanism that leads to this decline in AMH levels, as well as the relationship between this abnormality and reproductive function in women with DMI.

LIMITATIONS

A limitation of our study is that the menstrual cycle abnormalities observed in DMI may have several causes. The irregularities of the menstrual cycle in DMI patients have been associated with abnormalities in the hypothalamic pituitary axis (djursing et al.1985; codner and cassorla,2008) or PCOS (codner et al 2006, codner and Escobar-Morreale, 2007). Our data suggest that ovarian aging may also represent an underlying mechanism.

FUTURE SCOPE

- In future, women with sub fertility can also be included in the study.
- Routine Screening procedure for AMH levels (reproductive profile) in T2DM patients.
- Insulin injections at an earlier age could help in maintaining ovarian reserve pool.