

TITLE: HORMONAL SHIFTS AND MENOPAUSAL STRUGGLES: THE FSH-ESTRADIOL LINK IN INDIAN WOMEN



INTRODUCTION

- FSH and estradiol, key markers of menopause, exhibit complex interactions beyond reproduction.
- Their relationship with BMI, symptom severity, and metabolic conditions in Indian women remains underexplored.

OBJECTIVES

1. correlations between FSH levels and-
 - Severity of menopausal symptoms
 - Relation with cardiovascular and metabolic risk factors
2. Assess estradiol levels in relation to these variables.
3. To explore the potential of these hormones as predictors for menopausal symptom severity, metabolic syndrome, and required interventions

MATERIAL AND METHODS

- Cross sectional study of 60 women – 30 menopausal and 30 non menopausal done
- Data collection with measurement of sr FSH and E2 values done
- Correlation done using IBM SPSS software

Inclusion criteria –

- Women >40 years and <65 years without menopause
- Postmenopausal women >40 yrs and <65 years not on hormone replacement therapy, glucocorticoids

Exclusion criteria –

- Surgical menopause
- Premature ovarian insufficiency

RESULTS

- Mean age was **51.14 ± 4.43 years**
- *FSH, and Estradiol* (E2) levels showed no correlation with symptom, severity (p value-**0.197** and **0.558** resp)
- Comparing estradiol levels between individuals with and without HTN T2DM showed no significance(pvalue- **0.892**)
- Likewise, *FSH* levels did not significantly differ in people with or without HTN or DM (p value - **0.49**)

CONCLUSION

Menopause requires individualised care. FSH and estradiol show limited predictive power as standalone markers of menopausal outcomes. Future research should integrate psychosocial, genetic, and environmental factors

DISCUSSION

Estradiol variability, not static levels, influences symptoms, Specially mood (Joffe et al., 2020). Psychosocial and lifestyle factors outweigh FSH levels in symptom manifestation.(2)Some studies suggest estradiol’s protective effects against metabolic syndrome, while others report limited associations

REFERENCES

This is a part of multicentric study and there is no conflict of interest
Joffe H, de Wit A, Coborn J, et al. (2020). Impact of Estradiol Variability and Progesterone on Mood in Perimenopausal Women With Depressive Symptoms.
Mitchell ES, Woods NF. (2015). Hot flush severity during the menopausal transition and early postmenopause:

Sr FSH levels and symptom severity

