

A STUDY OF LIPID PROFILE AND SERUM OESTRADIOL LEVEL IN POSTMENOPAUSAL WOMEN

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BACKGROUND:

Female coronary heart disease morbidity rate accelerate after the age of 45 years. Significance of duration of menopause on serum oestradiol level and its correlation with lipid profile is to be investigated so that postmenopausal women can undergo further evaluation and earlier management.

AIM AND OBJECTIVE:

To estimate and compare the lipid profile and serum oestradiol level in postmenopausal women who are divided into three groups and to correlate serum oestradiol level with the changes in lipid profile.

METHODS:

After getting ethical committee approval, in this cross sectional study, postmenopausal women attending Government Rajaji Hospital for master health checkup were selected. Women with duration of menopause less than 5 years (n=30) were taken as group-I, 5-10 years (n=30) as group-II and more than 10 years (n=30) were taken as group-III and estimation of lipid profile and serum oestradiol was done.

RESULTS:

Statistical analysis was done using **ANOVA** calculations. The values of serum oestradiol and lipid profile were compared between three groups. As the duration of menopause increases, there is a significant decrease in serum oestradiol level ($p < 0.001$), increase in total cholesterol ($p = 0.006$) and low density lipoprotein levels ($p < 0.001$) and decrease in high density lipoprotein level ($p < 0.001$). From **Pearson's correlation** it is found that serum oestradiol is negatively correlated with total cholesterol and low density lipoprotein and positively correlated with high density lipoprotein.

CONCLUSION:

The long term deficiency of oestrogen with increase in the duration of menopause decreases the protection from coronary heart disease by altering the lipid levels. It is important to monitor the lipid profile regularly and specific health education strategies are needed in postmenopausal women of longer duration.

KEYWORDS:

Coronary heart disease, Lipid profile, Serum oestradiol, Postmenopausal