

## Impact of Hormone Replacement Therapy on Body Composition Analysis of Women during Perimenopause: A Framework for Action

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**Abstract :** Introduction: Women's Health Initiatives (WHI) focuses on defining the risks and benefits of strategies that could potentially reduce the incidence of obesity, heart disease, breast cancer and colorectal cancer, and fractures in menopause women. The utility of the present research work determines to find the role of Hormone Replacement Therapy (HRT) in changing the different component of body composition during perimenopause period. Methods: A comparative cross-sectional study included 30 subjects, aged between 40 and 50 years which were assigned into 2 groups i.e. 15 subjects in HRT (Group A) and 15 subjects in non-HRT (Group B). The subjects were taken from the hospitals and clinics of Faridabad undergoing HRT in supervision of the consultant gynecologist. The informed consents were signed before including the participants in the study. The body composition and lipid profile were evaluated for all the subjects. Result and Discussion: The BMI, body density, percent body fats and fat mass in both groups showed statistically significant differences i.e.  $p < 0.05$ . Our study did not reveal any statistically significant difference between non-HRT and HRT for lipid profile composition of HDL, LDL, VLDL, ratio, triglycerides and total cholesterol although these indicators (LDL, VLDL, ratio, triglycerides and total cholesterol) showed difference clinically with a higher mean values for non-HRT as compared to HRT group. The mean value for HDL was higher for HRT group in contrast to non-HRT group. The result clearly showed that HRT group has a good lipid profile composition. Conclusion: In conclusion, our data show that HRT has statistically significant role in determining BMI, fat percent mass and fat mass. The lipid profile including LDL, HDL, VLDL, ratio, triglycerides and total cholesterol found to be clinically better in HRT group as compared to the non-HRT group. The rationale for non-significant lipid profile probably lie in the fact that hormonal changes need a particular time period and might become significant in post-menopausal period.

**Keywords :** body composition, hormone replacement therapy, perimenopause, women health

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