Hormonal contraceptive use and hypercholesterolemia among reproductive age group women in Arsi Zone, Ethiopia 2020

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Abstract:
Introduction: Recent developments in hormonal contraceptives have been directed toward lowering the dosage of steroid hormones to minimize their risk potentials: ischemic heart disease, stroke, myocardial infarction, thromboembolism, and changes in the blood clotting mechanism. Hypercholesterolemia (dyslipidemia) is a condition that occurs due to deviations of plasma lipids from normal value, i.e., increased total cholesterol (TC), increased low-density lipoprotein cholesterol (LDL-C), increased triglycerides (TG) and reduced high-density lipoprotein cholesterol (HDL-C) levels, happening singly or in combinations.

Objectives: The objective of the study was to determine the effect of hormonal contraceptive use and dyslipidemia among Reproductive age group women in Arsi Zone, Ethiopia 2020.

Methods: A cross-sectional study design was used; and multi-stage sampling was applied for recruitment of the study participants. Data on socio-demographic, life style behavior, blood pressure, anthropometric measurements, and fasting blood samples for lipid profiles and glucose level collected from participants. The data were entered and analyzed using SPSS 21. Descriptive and logistic regression analysis were done to present figures.

Result: A total of 384 women were involved in the study. The mean level of waist circumference, waist-to-hip ratio (WHR), body mass index (BMI), systolic blood pressure (SBP), diastolic blood pressure (DBP), fasting blood sugar (FBS), total cholesterol level (TC), triglycerides (TG), low-density-lipoprotein (LDL), High-density-lipoprotein (HDL) were 84.00±9.7cm, 0.87±0.10, 25.02±3.91 kg/m^2, 119.33±17.49 mmHg, 78.10±10.91 mmHg, 103.81±55.28 mg/dl, and 43.71±10.80 mg/dl, respectively. This study reflected that abnormal lipid profile (dyslipidemia) was high among the women which was 30.2%. Body mass index (BMI) and Fasting blood sugar (FBS) were independently associated with dyslipidemia in multivariate analysis. Hormonal contraceptive use was not associated with dyslipidemia among the respondents logistic regression analysis.

Conclusions: The level of hypercholesterolemia among women was high but hormonal contraceptive was not associated with dyslipidemia in the study area. This finding indicates need of community awareness on prevention, detection, and treatment the hypercholesterolemia. It also recommended considering controlled large scale longitudinal study is needed to determine the true effect of hormonal contraceptives on serum lipid and lipoprotein levels among different population group using controls.

Biography:
Mesfin Tafa Segni Currently working as Assistant Professor of Epidemiology in the department of Public Health in Arsi University of Asella College of Medicine and Health Sciences and he worked as a lecturer at Mitaz - Tepi University at Office of the President from 2010 to 2015.

Publication of speakers:
1. Assessment of Risky Sexual Behaviors and Associated Risk Factors among Students of Arsi University, Ethiopia
2. Reproductive Health Right Practice among Preparatory School Female Students of Assela Town, Arsi Zone, Oromia Regional State, Ethiopia.