

# **The Effect of Methyl dopa on serum lipid profile in rat**

**Laith Mohammed Abbass AL-Hussueni**

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## **Abstract**

Evidences linking hypertension and dyslipidemia are very important in deciding which antihypertensive drug is going to be described to hypertensive patient who have or at risk to have dyslipidemia. Antihypertensive drugs which have neutral effect or preferably beneficial effect on lipid profile are the first choice in those patients. Drugs with harmful effect on serum lipid profile may add another problem to the patient and increase the risk of complications. Purpose: This study is carried on to evaluate the effect of methyl dopa on serum lipid profile. Methods: Twenty rats enrolled in the experiment given atherogenic diet for twelve weeks then randomly divided into two groups, first group received 33 mg /Kg /day P. O Methyl dopa dissolved in 2 ml distilled water given by nasogastric tube twice daily and serve as control group. The treatment continues with atherogenic diet for another twelve weeks. The serum lipid profile namely triglyceride, total cholesterol, LDL-cholesterol (low density lipoprotein cholesterol) HDL-cholesterol (high density lipoprotein cholesterol) and HDL-cholesterol / total cholesterol ratio were estimated before and after the treatment. The statistical analysis was done using ANOVA with level of significance  $P < 0.05$ . Result: Methyl dopa was found to have no effect on serum triglyceride level and on total cholesterol serum level but it causes significant decrease in LDL-cholesterol serum level and significant increase in HDL- cholesterol serum level in comparison to control group. Conclusion: Methyl dopa has beneficial effect on serum lipid profile as it causes decrease in LDL-cholesterol level which is the atherogenic portion of cholesterol and causes increase in HDL-cholesterol level which is the protective portion of cholesterol. This effect justifies its use in patients who have or at risk to have dyslipidemia.