

## Evaluating insulin, leptin, adiponectin levels in high fructose- fed rats treated with some antioxidants

Laila M Fadda, Hala M. Abdel karem, Nouf M. Al-Rasheed, Nawal M. Al-Rasheed and Yieldez A. Bassiouni  
King Saud University, Saudi Arabia

The metabolic syndrome (Met) is a constellation of risk factors. The objective of this study is to compare the ameliorating effect of metformin, carnitin, lipoic acid, lipitor and orilstate on insulin, lipid profile, leptin, adiponectin levels in high fructose fed rats (HF). Seventy rats were divided into, G1: normal control, G2: G7 rats fed HF for 8 wks. but after the fourth wk G3, G4, G5, G6 and G7 were orally administered metformin, lipitor, orilstate, lipoic acid, and or carnitin. All drugs were administered once daily. After 8 weeks of feeding, a significant increase in blood glucose level was observed in HF fed rats compared to normal, but this increase was significantly decreased after administration of metformin and lipitor. The rise of serum insulin in HF fed rats was significantly decreased after administration of lipoic, carnitin, metformin. Significant higher concentrations of triglycerides (TG), total cholesterol & low density lipoprotein cholesterol (LDL-C) were observed in HF rats and these were lowered after the administration of drugs in question. There was a significant decrease in serum high density lipoprotein cholesterol (HDL-C) in HF group the administration of all drugs alleviates this reduction. The increased of serum leptin level in HF group was decreased significantly in metformin and orilstate groups. Whereas the reduction of serum adiponectin level was increased in Lipitor, carnitin, orilstate groups. This suggested the beneficial effect of metformin, lipitor, orilstate, lipoic acid carnitin in reducing risk for people with decreased insulin sensitivity as well as hyperlipidemic subjects.

### Biography

Laila M Fadda has completed his Ph.D. at the age of 35 years from Cairo University and postdoctoral studies from Minia University School of Medicine (Egypt). I was dean of faculty of pharmacy. Now I am working as a professor in King Saud University- Pharmacy collage - Pharmacology Depart- Riyadh - Saudi Arabia. I had sixty papers, some of them were published in ISI journals.