PROTECTIVE POTENTIAL OF GLIMEPIRIDE AND *NERIUM OLEANDER* EXTRACT ON LIPID PROFILE, BODY GROWTH RATE AND RENAL FUNCTION IN STREPTOZOTOCIN-INDUCED DIABETIC RATS

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Abstract

This study is aimed to assess the protective potential of glimepiride and *Nerium oleander* extract on lipid profile, body growth rate and renal function in streptozotocin-induced diabetic rats. Animals were divided into control and experimental groups. The experimental group was rendered diabetic by intraperitoneal injection of a single dose of 50 mg/kg body weight streptozotocin. Rats with glucose levels >200 mg/dl were subdivided into three sub-groups: rats of the first sub-group were remained without treatment and considered as diabetics. Animals of the second and third subgroups were orally administered 0.1mg/kg body weight daily glimepiride and 250 mg/kg body weight daily *Nerium oleander* extract, respectively for 4 weeks. In streptozotocin-induced diabetic rats serum triglycerides and cholesterol were significantly increased whereas body growth rate was markedly decreased compared to controls. In contrast to uric acid and creatinine, urea concentrations were markedly elevated. Treatment of diabetic rats with glimepiride or plant extract did improve all of these parameters indicating their antidiabetic efficacy.

**Key Words:** Diabetes rats, lipids, growth rate, kidney, glimepiride, *Nerium oleander*, protection.