

The present study was designed to evaluate the anti-diabetic effect of native and modified citrus pectin. A total 35 Wistar Strain rats were categorized into 5 groups each group included 7 rats. Hyperglycemic was induced in all groups except negative control (G1) by alloxan intraperitoneal injection. G2 was considered as positive control, G3 was treated by glibenclamide as standard drug (10mg/kg b.w), G4 and G5 were given (750 mg/kg b.w) of modified and native citrus pectin, respectively for 56 days. After the experimental period, body weight and biochemical markers i.e. blood glucose, liver, renal function tests and lipid profile were performed. The obtained results showed significant decrements were acquired in final body weight of untreated diabetic rats (positive control). Also, significant increments in liver functions i.e. AST, ALT and ALP were achieved in diabetic rats. In addition to that, the obtained results illustrated that a noticeable increments were accomplished in kidney functions i.e. creatinine, uric acid and urea. Besides that serum blood glucose levels had significant increment for the positive control at the same period of experiment. Furthermore, the levels of parameters of lipid profiles had been significantly increased in diabetic rats except HDL- cholesterol was decreased comparing to healthy negative control. Finally, it has been concluded that the application of native and modified citrus peel pectins improved the abovementioned parameters. Therefore the native and modified citrus pectins can be considered as a natural inexpensive in therapeutic purposes of diabetic rats, comparing with chemical drugs without any side effects