

Estimation of protein oxidation parameters in patients with Diabetic nephropathy



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Abstract

This study aimed to evaluate some biochemical parameters that considered markers of oxidative stress in patients with diabetes Miletus type II and diabetic nephropathy compared to healthy controls and study the correlation between them. Seventy-four serum samples were included in this study with ages ranges between (20-55), divided to (24) samples of patients with type 2 diabetes, (25) patients with diabetes nephropathy as diabetic complications and (25) healthy controls. The studied parameters included random blood sugar, total protein, activity of (ceruloplasmin and catalase), (thiol, free amino, and carbonyl) groups concentration. The results indicated that there was significant increase in (glucose and carbonyl) levels in patients groups compared to healthy subjects and non – significant difference between patients' groups, the specific activity of ceruloplasmin, activity of catalase and thiol levels increase in diabetic nephropathy compared to diabetes Miletus type II patients and healthy subjects and non-significant increase between diabetic nephropathy and healthy subjects. The specific activity of catalase represented significant increase and the total protein concentration was significantly decrease in all studied groups. The results of correlation indicated that there was significant negative correlation between thiol and glucose (-0.397/0.050) in diabetes Miletus type II patients and between Carbonyl and thiol -0.472/0.017. Significant positive correlation between CP and glucose 0.671/0.000 in diabetes nephropathy.