Study on lipid peroxidation,glutathione peroxidase,superoxide dismutase in some renal patients and the protective effect of therapeutic antioxidants

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This study was done on fourty patients with renal diseases and ten healthy voluntears serving as controls . the patients were classified into two groups , patients under regular hemodialysis and patients with different degree of renal diseases . All cases were subjected to thorough history taking, clinical examination and the following laboratories investigation :1) Complete blood picture 2) Complete urine examination .3)serum urea, creatinine and creatinine clearance4)Plasma glutathione peroxidase, superoxide dismutase and malondialdehyde levelsThe patients were reevaluated six months after intake of oral antioxidants composed of vitamin A, C, and EThe following were reported in this work :1-A significant decrease in plasma SOD and GPX in renal patients when they compared with controls . this was explained by cellulardefense system against oxidative damage induced by oxygen free radicals2-A significant increase in plasma MDA in renal patients when compared with controls . this was explained by the increased oxidative injuries in these patients3-Plasma GPX and SOD were significantly lower and plasma MDA was significantly higher in dialysis patients when compared with patients under conservative treatments . During hemodialysis leucocytes are activated by contact with non physiological surface line tubing and produce oxygen free radicals . This cell activation may be responsible for the increased lipid peroxidation .4-The degree of renal impact on GPX , SOD and MDA