

Antioxidant Status in Type 2 Diabetic Neuropathy

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Objective: To measure the concentration of total antioxidant status (TAS) in type 2 diabetes mellitus patients complicated with peripheral neuropathy.

Design: Case-control study.

Setting: The College of Medicine and Al-Wafaa Center of Diabetes, Mosul.

Method: Thirty type 2 diabetic patients, having evidence of distal symmetrical polyneuropathy and thirty sex and age-matched healthy volunteers participated in the study. Serum glucose concentration and total antioxidant status (TAS) was measured in both groups.

Result: Mean fasting blood sugar of the patient group (11.31 ± 2.84 mmol/l) was significantly higher ($p < 0.001$) than that of the control group (4.97 ± 0.95 mmol/l). Mean TAS of the patient group (1.31 ± 0.42 mmol/l) was significantly lower ($p < 0.001$) than that of the control group (1.98 ± 0.16 mmol/l).

Conclusion: The present study demonstrated that type 2 diabetic patients with peripheral neuropathic complications have lower levels of TAS. This low value of TAS may be due to oxidative stress caused by hyperglycemia that reduce the concentration of the antioxidant status of the body.

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