

A CORRELATIONAL STUDY ON PLASMA RESISTIN LEVELS AS A BIOCHEMICAL INDICATOR FOR DIABETIC NEPHROPATHY AND OTHER MICROANGIOPATHIES IN TYPE 2 DIABETIC PATIENTS

Abdelfattah A Alhader

University: University of Science & Technology DALLAS, Texas

Resistin is an adipocyte-secreted peptide. The relationship between circulating resistin concentrations and various pathophysiological aspects of type 2 diabetes mellitus, if any, remains poorly understood. In human studies, relationships of circulating resistin to indicators of insulin sensitivity, adiposity and type 2 diabetes have been inconsistent and controversial. This study investigated the importance of resistin as a biochemical indicator of clinical complications in male and female patients with type 2 diabetes mellitus. Fasting resistin plasma levels were measured in a total of 140 male and female type 2 diabetic patients. The correlation of determined resistin levels in type 2 diabetic patients with the following clinical complications: diabetic nephropathy, diabetic retinopathy, peripheral neuropathy were investigated. This study revealed that the mean plasma resistin level was significantly higher ($p= 0.001$) by 51% in nephropathy-positive group (10.76 ng/ml) compared to nephropathy-negative group (7.12 ng/ml). Moreover, it was also found that the mean plasma resistin level was significantly higher ($p= 0.001$) by 33% in neuropathy-positive group (9.47 ng/ml) compared to neuropathy-negative group (7.11 ng/ml). No statistically significant difference in mean plasma resistin levels was found in retinopathy-positive group (8.40 ng/ml) compared to retinopathy-negative group (7.63 ng/ml).

The results of this investigation may help to elucidate the role of resistin in the pathogenesis of diabetic complications and will facilitate its utilization in the prediction and prevention of these clinical complications.