

Relationship between inflammatory markers, coronary risk factors and cognitive functions in elderly diabetics

Khatteer, M. S.

Ain-Shams Univ., Cairo (EGY). Fac. of Med.

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This work aimed to assess the relationship between inflammatory markers C-reactive protein "CRP", interleukin-6 "IL-6" and interleukin-1beta "IL-1beta", coronary risk factors, and cognitive functions among elderly diabetics. Ninety elderly persons were involved in the current study, 60 of them were diabetics (30 have diabetes with other co-morbid disease and 30 with diabetes only) and the rest 30 were normal at the time of the study. All of them underwent comprehensive geriatric assessment, assessment of different coronary risk factors, and some investigations (serum level of CRP, IL-6 and IL-1beta, ESR, ECG, and abdominal ultrasound). There was higher serum level of the inflammatory markers measured among diabetic patients than the control elderly.

Among elderly diabetics CRP was positively correlated with male gender, age, smoking status, total cholesterol, Triglycerides "TGD", Low Density Lipoprotein "LDL", Body Mass Index (BMI), fasting blood sugar and diabetes duration. IL-6 was positively correlated with female gender, total cholesterol, TGD, LDL, HDL, BMI and fasting blood sugar. IL-1beta was positively correlated with total cholesterol, TGD, LDL, and fasting blood sugar.

The increase in the concentrations of markers of the acute phase response in patients with type II diabetes strongly support the hypothesis that type II diabetes is associated with chronic lowgrade inflammation.

Diabetic patients were associated with lower MMSE score.

There was insignificant correlation between MMSE and inflammatory markers among diabetic patients.