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Comparison of the metabolic status for type 2 diabetics and hypertensive diabetics

Ines Gouaref

Etablissement Public Hospitalier d'El Biar Algérie

The association hypertension / diabetes mellitus is common. Hypertension often precedes his appearance and precipitates renal disease. This work compares the metabolic status of non-hypertensive diabetics to the hypertensive diabetics. The study concerns 51 diabetics aged from 33 to 55 (14 non-hypertensive and 37 hypertensive). We estimate Glycemia (GOD/POD), glycosylated hemoglobin HbA1c (Immuno-turbidimetry), Urea (urease), Creatinine (JAFPE), Uric Acid (uricase), Cholesterol (CHOD/POD), Triglycerides (GPO/POD), HDL-c (Direct Immuno-turbidimetry), CRP (agglutination), LDL-c and the atherogenic ratio were calculated respectively by: Friedwald formula: $LDL-c = Cho - (HDL + (TG / 5))$ and $TC / HDL-c$.

Results show that for the hypertensive diabetics glycemia and glycosylated hemoglobin are lower than the non-hypertensive ones by 10,1% and 7,5% respectively. Same remark for the lipid profile, the value fall by 16,2% for the triglycerides, 4,1% for the cholesterol, 2% for HDL-c, 2,5% for LDL-c and 7,5% for the CT/HDL-c ratio. On the other hand, the Urea, the creatinine and the uric acid present higher values by 15,3%, 1,8% and 0,9% respectively.

We observe a better carbohydrate and lipid balance for the hypertensive diabetics; this can be explained by a multifactorial clinical care of these patients. In the non-hypertensive case, the disruption of their clinical assessment could be the result of treatment unsuitable or poorly observed. Diabetic cardiovascular risk is significantly increased, hence the importance of early and systematic hypertension detection to allow a better management of these patients.

Biography

Ines Gouaref is conducting her Phd Thesis on the link between trace elements, type 2 diabetes and hypertension in the University of Science and Technology Houari Boumediene, Algiers, Algeria. She started her Phd thesis in 2011 and participated to many national and international scientific events to present her conclusions on the diabetes in Algeria, north Africa.

igouaref@gmail.com