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## Nesfatin level is an early indicator of atherosclerosis in type 1 diabetic patients

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**Objective:** To evaluate plasma level of nesfatin as an indicator of early atherosclerotic changes in type 1 diabetic patients.

**Patients and methods:** 70 type 1 diabetic patients and 30 age and sex matched healthy volunteers were included. Mean age of patients was  $17.99 \pm 2.59$ , mean duration of diabetes was  $10.91 \pm 3.54$ , and mean onset of disease was  $7.00 \pm 3.28$ . Blood samples were taken for assessment of glycosylated hemoglobin (HbA1c), lipid profile, nesfatin and oxidized low-density lipoprotein (OxLDL). Urine samples were taken for assessment of albumin/creatinine ratio. Carotid (cIMT) and aortic (aIMT) intima-media thickness were also done.

**Results:** Nesfatin, OxLDL, albumin/creatinine ratio, cIMT and aIMT were significantly higher in diabetic patients. Nesfatin had a significant positive correlation with cholesterol and aIMT, on the other had it had a negative correlation with HDL. OxLDL had a significant positive correlation with waist/hip ratio and HbA1c. Nesfatin had a good diagnostic accuracy (AUC = 0.6) with patients with aIMT and cIMT. Nesfatin had a good sensitivity and specificity in relation to aIMT (68.3 and 60 respectively) than cIMT (90.9 and 37.5 respectively).

**Conclusion:** Nesfatin is higher in diabetic patients and had a good diagnostic accuracy for early detection of atherosclerosis.

### Recent Publications

1. Ahmed A. Battah, Soha M. Abd El Dayem, Abo El Magd El Bohy, Amal El Shehaby and Esmat Abd El Ghaffar. Relationship of plasma level of chemerin and vaspin to early atherosclerotic changes and cardiac autonomic neuropathy in adolescent type 1 diabetic patients. *J Pediatr Endocr Met* 2015; 28(3-4): 265–273.
2. Ahmed A. Battah, Soha M. Abd El Dayem, Abo El Magd El Bohy and Amal El Shehaby. Evaluation of fetuin-A and carotid intima-media thickness in adolescent type 1 diabetic patients. *J Pediatr Endocr Met* 2015; 28(3-4): 287–292.
3. Ahmed A. Battah, Soha M. Abd El Dayem and Abo El Magd El Bohy. Carotid intimal medial thickness and its relation to endothelial dysfunction and echocardiographic changes in adolescents with type 1 diabetes. *J Pediatr Endocrinol Metab* 2015; 28(9-10): 1029–1037.
4. Ahmed A. Battah, Soha M. Abd El Dayem, Amal El Shehaby and Nagwa Abd Allah. Assessment of human cartilage glycoprotein 39 (YKL-40), preptin, and nitric oxide in adolescent patients with type 1 diabetes and its relation to cardiorenal affection.
5. Ahmed A. Battah, Soha M. Abd El Dayem, Abo El Magd El Bohy. Assessment of Increase in Aortic and Carotid Intimal Medial Thickness in Type 1 Diabetic Patients. *Open Access Macedonian Journal of Medical Sciences*. 2016 Dec 15; 4(4):630-635. *J Pediatr Endocr Met* 2015; 28(3-4): 309–314.

### Biography

Ahmed A. Battah is currently professor in Cairo University, Consultant of Cardiology, Endocrinology and diabetes. He completed M.B.B.Ch from Cairo University; M.Sc. from Cairo University; M.D. from Cairo University. He is currently working in the Critical Care Unit in Kaser El Aini Hospital. He attended around 150 conferences; has 30 international publications. He is a reviewer in many international journals. He is a supervisor for MSD and MD Co-principle investigator in 3 projects. He is the member of Diabetes and Endocrinology Society for children in Egypt, Egyptian Society of Cardiology, European Society of Cardiology, Egyptian Society of Critical Care Medicine, and European Society of Intensive care Medicine.

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