CLINICAL VALUE OF ADIPONECTIN IN EGYPTIAN TYPE 1 DIABETICS

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**Abstract**

**Objectives:** Adiponectin is an adipokine with anti-inflammatory and anti-atherogenic effects. This study was carried out to evaluate the relationship between adiponectin and: plasma lipoprotein lipids, cardiovascular risk assessment ratios, glycemic control indices, albumin to creatinine ratio and diabetes duration in Egyptian children and adolescents with Type 1 diabetes mellitus "T1DM".

**Design and methods:** Study included 60 clinically diagnosed T1DM patients (subdivided according to diabetes duration). In addition, 20 healthy controls were selected with comparable socioeconomic, age, body mass index, Tanner stage and sex distribution. Glycemic control indices, lipid profile, total adiponectin, microalbumin and urinary creatinine were measured and albumin to creatinine ratio was estimated. Results were subjected to SPSS statistical Analysis.

**Results:** Adiponectin had higher serum levels in Egyptian children and adolescents with T1DM irrespective to duration of disease at P < 0.0001. Adiponectin correlated inversely with TG at P < 0.01. Adiponectin had higher diagnostic accuracy compared to traditional atherogenic indices (LDL-C/HDL-C and TC/HDL-C).

**Conclusion:** T1DM children and adolescents tend to have lower risk for cardiovascular complications via adiponectin high ability to prevent atherosclerosis.

**Keywords:** Adiponectin, Lipid profile, Cardiovascular risk, Type 1.
Poster abstract: "Clinical value of adiponectin in Egyptian type 1 diabetics". El Hefnawy et al. (2011) - 3 -

PUBLISHED IN


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Ordered list of degrees:
- Secondary Stage: year 2000
- BSc.: Year 2005. Bachelor of Pharmaceutical Sciences; Cumulative Grade: “Excellent with Honors”, Ranked 3rd among 320 students, (Faculty of Pharmacy, Helwan University), May 2005.
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Academic experience:
- Instructor & demonstrator, Department of Biochemistry & Molecular Biology, Faculty of Pharmacy, Helwan University, Nov. 2005 - Oct. 2010.
- Working at National Institute for Diabetes and Endocrinology "NIDE" in the field of clinical research for obtaining master degree in pharmaceutical sciences (Biochemistry& Molecular Biology), 2009.
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RESEARCH INTERESTS:
- Clinical biochemistry
- Molecular biology
- Tumor markers applications
- Stem cell clinical applications

AWARDS & HONORS:
- Helwan University award as a Privileged student of the college in 2005.
- Shield of excellence 2005: General Egypt Syndicate of Pharmacists.
- "The Best Scientific Thesis" award in the field of "Basic Sciences" for the academic year 2011 / 2012 for the master thesis titled "The Clinical Value of Adipocyte Secretory Proteins as Markers in Complications of Egyptian Type 1 Diabetic Patient."