

**EVALUATION OF PLASMA PLASMINOGEN
ACTIVATOR INHIBITOR-1 (PAI-1) IN TYPE 2
DIABETES MELLITUS**

Thesis

**Submitted for partial fulfillment of
M.Sc. Degree in Internal Medicine**

By

**Doaa Mahmoud Hamed Khatab
M.B.B., CH.**

Under supervision of

PROF. Dr. SHERIF IBRAHIM HAFEZ

**Prof. of Internal Medicine
Faculty of Medicine, Cairo University**

PROF. Dr. OMAR EL-SAADANY

**Prof. Internal Medicine,
Faculty of Medicine, Cairo University**

PROF. Dr. YASSER NASSAR

**Prof. Of Biochemistry
Faculty of Medicine, Cairo University**

Faculty of Medicine

Cairo University

2003

Abstract

In this study, plasminogen activator inhibitor-1 (PAI-1) level in plasma is evaluated in 20 type 2 diabetic female patients, 10 with controlled and 10 with uncontrolled diabetic state, and a control group of 10 healthy subjects. PAI-1 correlated to other parameters of diabetes (fasting blood glucose, post prandial blood glucose, insulin level and glycated hemoglobin) and to ischemic heart disease as a complications of diabetes detected by electrocardiogram. Results showed that diabetic patients showed significantly higher PAI-1 level when compared normal subjects ($p=0.000$). Also patients with uncontrolled diabetic state showed a significantly higher PAI-1 level when compared to patients with controlled diabetic state ($p=0.042$). PAI -1 showed a positive correlation to fasting blood glucose ($p=0.000$), post prandial blood glucose ($p=0.000$), insulin ($p=0.000$) and glycated hemoglobin ($p=0.000$). Diabetic patients with ischemic changes in ECG had significant higher PAI-1 level when compared to patients with normal ECG. ($p =0.001$).

Key words:

- Diabetes Mellitus (DM).
- Plasminogen activator inhibitor -1 (PAI-1).