

**Correlation Between Placental Bed Biopsy
Findings, Vascular Cell Adhesion Molecule And
Fibronectin Levels In Pre-Eclampsia**

A Thesis

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By

Haitham Mohammad Badran

M.B.B.Ch. M.Sc.

Assistant Lecturer Of Obstetrics And Gynecology
Cairo University (Fayoum branch)

Supervised By

Professor **Ahmad Amin Mostafa Hassanein**

Professor Of Obstetrics and Gynecology
Faculty of Medicine, Cairo University

Professor **Elia Anees Eshak**

Professor Of Pathology
Faculty Of Medicine, Cairo University

Professor **Omaima Labib Gohar**

Professor of Clinical Pathology
Faculty of Medicine, Cairo University

Faculty of Medicine Cairo University

Abstract

Pre-eclampsia is a condition unique to human pregnancy, it is a significant cause of maternal & neonatal morbidity and mortality.

The objective of this study was to determine the correlation between VCAM-1 & fibronectin and also to assess the correlation of these two markers with the severity of pre-eclampsia. Also to evaluate the relation between placental bed biopsy findings with these 2 markers and the severity of the disease.

Fibronectin & VCAM-1 were measured in maternal plasma in 2 groups of pregnant women: the pre- eclamptic group which includes 80 patients and further subdivided into 2 subgroups, mild pre- eclamptic group included 32 patients and the severe pre- eclamptic group which included 48 patients and the control group which included 40 patients (healthy pregnant women). Also biopsies from the placental bed were taken from all patients.

Both VCAM-1 and fibronectin were found significantly higher in pre- eclampsia and they were significantly positively correlated together with the severity of pre- eclampsia, pathological changes also were found to take place in the placental bed of the pre- eclamptic cases in the form of defective trophoblastic invasion of the spiral arteries and were positively correlated with the severity of the condition.

Therefore it is concluded that inadequate trophoblastic invasion of the spiral arteries and elevated levels of VCAM-1 and fibronectin were found in women with pre-eclampsia. The magnitude of defective trophoblastic invasion, and blood levels of VCAM I and fibronectin correlate with the clinical severity of pre- eclampsia.

Key words: pre- eclampsia, fibronectin, VCAM-1, placental bed biopsy.