



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرو فيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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Prognostic value of Human epididymis protein 4 (HE4) for persistent proteinuria in women with severe preeclampsia / HELLP syndrome

Thesis

Submitted for Partial Fulfillment of Master Degree in Obstetrics & Gynecology

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سَبَّحَانَكَ لَا إِلَهَ إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

Abb.	Full term
ACOG	American college of obstetrics and gynecology
ACE	Angiotensin-converting-enzyme
ACR	Albumin-to-creatinine ratio
AER	Albumin excretion rate
AHA	American Heart Association
AKI	Acute kidney injury
ALT	Alanine transaminase
ARR	Absolute risk reduction
ASA	American Stroke Association
AST	Aspartate transaminase
AUC	Area under curve
BMI	Body mass index
BP	Blood pressure
CA125	Cancer antigen 125
CKD	Chronic kidney disease
CKD-EPI	Chronic kidney disease epidemiology collaboration
CVD	Cardiovascular disorders
DBP	Diastolic blood pressure
eGFR	Estimated glomerular filtration rate
EIA	Enzyme immunoassay
ELISA	Enzyme-linked immunosorbent assay
EOC	Epithelial ovarian cancer
ESRD	End-stage renal disease
FDA	Food and drug administration
GA	Gestational age
Hb	Hemoglobin
HELLP	Hemolysis, Elevated Liver enzymes, Low Platelet count
HDPs	Hypertensive disorders of pregnancy
HE4	Human epididymis protein 4

List of Abbreviations Cont...

Abb.	Full term
HLA	Human leucocytic antigen
HRP	Horseradish peroxidase
IL	Interleukin
INR	International normalized ratio.
IUGR	Intra-uterine growth restriction
IUFD	Intrauterine fetal death
NICE	National Institute for Health and Care Excellence
NKs	Natural killer cells
NVD	Normal vaginal delivery
O.D	Optic density
PCR	Protein-to-creatinine ratio
PE	Preeclampsia
PER	Protein excretion rate.
PIH	Pregnancy-induced hypertension
PT	Prothrombin time
PTT	Partial thromboplastin time
ROC	Receiver operating characteristic
RR	Relative risk
SBP	Systolic blood pressure
SD	Standard deviation
sFlt-1	Soluble fms-like tyrosine kinase -1
SLE	Systemic lupus erythematosus
SOGC	Society of obstetricians and gynecologists of Canada
SPSS	Statistical program for social science
TMB	Tetramethylbenzidine substrate
UOP	Urine output
VEGF	Vascular endothelial growth factor
WHO	World health organization

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**PROTOCOL OF A THESIS FOR PARTIAL
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Title of the Protocol: Prognostic value of Human epididymis protein 4 (HE4) for persistent proteinuria in women with severe preeclampsia / HELLP syndrome.

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What is already known on this subject?

Severe preeclampsia and/or HELLP syndrome is a multisystem disorder that is associated with kidney affection, and correlated to increased future risk of persistent albuminuria, deterioration of glomerular filtration rate (GFR), and chronic kidney disease.

1. INTRODUCTION/ REVIEW

Preeclampsia (PE) is a multisystem disorder unique to human pregnancy, that is characterized by new-onset hypertension (blood pressure $\geq 140/90$ mmHg) and proteinuria (≥ 300 mg/dl) after 20 weeks of gestation (Chaiworapongsa et al., 2014). Preeclampsia (PE) complicates around 4.6 percent of pregnancies worldwide, that reach up to 10% of pregnancies in developing countries (*Grill et al., 2009; Abalos et al., 2013*).

PE affects kidney function during pregnancy and also increases the risk of future chronic kidney disease (CKD) and cardiovascular disease, with a fourfold increased risk of developing end-stage renal disease (ESRD) within 10 years after pregnancy (*Vikse et al., 2008; Machado et al., 2012*).

Preeclampsia causes direct kidney injury resulting in proteinuria that continues to mediate subsequent injury. (Hallan et al., 2009). Proteinuria after preeclampsia generally resolve within twelve weeks after delivery, but some cases up to 14 % will have persistent proteinuria twelve weeks after delivery, However proteinuria which persist more than three months should prompt