

**Diagnostic Validity of Serum and Peritoneal  
TNF-alpha, High Sensitivity CRP and Plasma  
Cell-Free Nuclear DNA (ccf nDNA) as  
Biomarkers of Pelvic Endometriosis  
A Case Control Study**

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سببناك لا تعلم لنا  
إلا ما علمتنا إنك أنت  
العليم العظيم

صدق الله العظيم

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## *List of Abbreviations*

<b>Abb.</b>	<b>Meaning</b>
<b>ASRM</b>	American Society of Reproductive Medicine
<b>AUC</b>	Area under the curve
<b>BMI</b>	Body mass index
<b>CA-125</b>	Cancer antigen 125
<b>CA19.9</b>	Cancer antigen 19.9
<b>ccf DNA</b>	Circulating cell free DNA
<b>ccf nDNA</b>	Circulating cell free nuclear DNA
<b>CGRP</b>	Calcitonin gene-related protein
<b>COCs</b>	Combined oral contraceptives
<b>COX-1</b>	Cyclo oxygenase isoenzyme 1
<b>COX-2</b>	Cyclo oxygenase isoenzyme 2
<b>CPP</b>	Chronic pelvic pain
<b>CRP</b>	C-reactive protein
<b>CT</b>	Computed tomography
<b>DC</b>	Dendritic cells
<b>DIE</b>	Deeply infiltrating endometriosis
<b>DMPA</b>	Depot medroxyprogesterone acetate
<b>DNA</b>	Deoxyribo nucleic acid
<b>EC</b>	Endometrial cells
<b>ECM</b>	Extracellular matrix proteins
<b>EDTA</b>	Ethylenediaminetetraacetic acid
<b>ELISA</b>	Enzyme linked immunosorbant assay
<b>EPF</b>	Endometriotic peritoneal fluid
<b>ER<math>\alpha</math></b>	Estrogen receptor alpha
<b>ER<math>\beta</math></b>	Estrogen receptor beta

<b>Abb.</b>	<b>Meaning</b>
<b>ESHRE</b>	European Society for Human Reproduction and Embryology
<b>EUS</b>	Endoscopic ultrasonography
<b>FasL</b>	Fas- ligand
<b>GAPDH</b>	Glyceraldehyde 3-phosphate dehydrogenase
<b>GI</b>	Gastrointestinal
<b>GnRH</b>	Gonadotrophin releasing hormone
<b>HS</b>	Highly significant
<b>hs-CRP</b>	High sensitive C reactive protein
<b>ICAM1</b>	Intercellular adhesion molecule-1
<b>IFN-<math>\gamma</math></b>	Interferon- $\gamma$
<b>IgG</b>	Immunoglobulin G
<b>IL</b>	Interleukin
<b>IUD</b>	Intrauterine device
<b>KAR</b>	Killer activating receptor
<b>KIR</b>	Killer inhibitory receptor
<b>LNG.IUS</b>	Levonorgestrel intrauterine system
<b>MCP1</b>	Monocyte chemotactic protein 1
<b>MHC</b>	Major histocompatibility complex
<b>ml</b>	Millilitre
<b>MM</b>	Minimal-mild
<b>MMP</b>	Matrix metalloproteinases
<b>MRI</b>	Magnetic resonance imaging
<b>mRNA</b>	Messenger ribonucleic acid
<b>MS</b>	Moderate-severe
<b>mt DNA</b>	Mitochondrial DNA

<b>Abb.</b>	<b>Meaning</b>
<b>NF</b>	Neurofilament
<b>ng</b>	Nanogram
<b>NK</b>	Natural killer
<b>NPV</b>	Negative predictive value
<b>NPY</b>	Neuropeptide Y
<b>NS</b>	Non significant
<b>PBM<sub>s</sub></b>	Peripheral blood monocytes
<b>PC</b>	Peritoneal cavity
<b>PF</b>	Peritoneal fluid
<b>Pg</b>	Picogram
<b>PGE<sub>2</sub></b>	Prostaglandin E <sub>2</sub>
<b>PGF<sub>2</sub><math>\alpha</math></b>	Prostaglandin F <sub>2</sub> $\alpha$
<b>PGP<sub>9.5</sub></b>	Protein gene product 9.9
<b>PG<sub>s</sub></b>	Prostaglandins
<b>PID</b>	Pelvic inflammatory disease
<b>PIGF</b>	Placental growth factor
<b>PM</b>	Peritoneal macrophages
<b>PP14</b>	Placental protein 14
<b>PPV</b>	Positive predictive value
<b>PR<math>\alpha</math></b>	Progesterone receptor alpha
<b>PR<math>\beta</math></b>	Progesterone receptor beta
<b>r-AFS</b>	Revised American fertility society
<b>RANTES</b>	Regulated on activation, normal T cell expressed and secreted
<b>r-ASRM</b>	Revised four staging scoring system of American society of reproductive medicine

<b>Abb.</b>	<b>Meaning</b>
<b>ROC</b>	Receiver operating characteristic
<b>ROS</b>	Reactive oxygen species
<b>RT-PCR</b>	Real time polymerase chain reaction
<b>S</b>	Significant
<b>S.ICAM1</b>	Soluble form of intercellular adhesion molecule-1
<b>SD</b>	Standard deviation
<b>SLE</b>	Systemic lupus erythematosus
<b>SP</b>	Substance P
<b>SPRMS</b>	Selective progesterone receptor modulators
<b>TGF.B</b>	Transforming growth factor B
<b>TIMP</b>	Tissue inhibitor of metallo proteinases
<b>TNF-<math>\alpha</math></b>	Tumor necrosis factor alpha
<b>TVS</b>	Transvaginal sonography
<b>TVU</b>	Transvaginal ultrasound
<b>VEGF</b>	Vascular endothelial growth factor
<b>VIP</b>	Vasoactive intestinal peptide

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