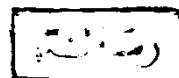


**SELENIUM BLOOD LEVEL IN NEWBORN
IN RELATION TO MATERNAL SELENIUM
STATUS IN HIGH RISK PREGNANCY**

THESIS

Submitted for partial fulfillment of the
Master Degree in **Pediatrics**



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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا سبحانك لا علم لنا إلا ما علمتنا
أنك أنت
العليم الحكيم

صدق الله العظيم
سورة البقرة آية ٢٢٣



TO MY HUSBAND

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I'll always be very grateful to my god who always helps me.

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LIST OF ABBREVIATIONS

<i>ACTH</i>	Adreno corticotrophic hormone.
<i>BPD</i>	Bronchopulmonary dysplesea.
<i>BUN</i>	Blood urea nitrogen.
<i>EPH</i>	Gestosis index.
<i>FFA</i>	Free fatty acid.
<i>FSH</i>	Follicle stimulating hormone.
<i>GFR</i>	Glomerular filtration rate.
<i>GSHPX</i>	Glutathione peroxidase.
<i>HCG</i>	Human chorionic gonadotrophin.
<i>HCS</i>	Human chorionic somatomammotrophin.
<i>HLA</i>	Lymphocytotoxic anti - paternal antibodies.
<i>HPL</i>	Human placental lactogen.
<i>IgA</i>	Immunoglobulin A.
<i>IgG</i>	Immunoglobulin G.
<i>IgM</i>	Immunoglobulin M.
<i>LH</i>	Leutinizing hormone.
<i>MAP</i>	Mean arterial pressure.
<i>PGI₂</i>	Prostacyclin.
<i>RDS</i>	Respiratory distress syndrome.
<i>RE</i>	Retinol equivalent.
<i>Se</i>	Selenium.
<i>SP₁</i>	Schwangerschafts.
<i>T₃</i>	Tri iodothyronine.

<i>T₄</i>	Tetra iodothyronine.
<i>TBG</i>	Thyroxin binding globulin.
<i>TLX</i>	Trophoblast - lymphocyte cross - reactive.
<i>TMG</i>	Tubular maxium for glucose reabsorption.
<i>TSH</i>	Thyroid stimulating hormone.
<i>TXA</i>	Thromboxane A ₂ .

INTRODUCTION

INTRODUCTION

Selenium was proved to be one of the essential trace elements since its supplementation prevented many diseases (**Shamberger , 1983**). It exists naturally in food mainly as organic compounds such as amino acids selenomethionine, selenocystiene (**Olsen et al , 1970**)

One of its functions is being an essential component of the enzyme glutathione peroxidase which is a part of an antioxidant system that protects membranes and essential proteins from the potential damaging effects of reactive oxygen and lipid peroxides (**Chow , 1979**)

GSH - PX eliminates free radicals and decreases lipid peroxidation , this phenomenon takes place in the fetomaternal compartment, therefore, Selenium is important in the nutrition of pregnant women whose requirements of Se increases during pregnancy (**Butler et al , 1982**).

In healthy pregnant women, it is found that plasma and whole blood Selenium began to decline at 2 and 4 months gestation, respectively reached a nadir just before term, the drop in plasma Se occurred prior to the plasma volume expansion (**Butler et al , 1982**).