

DEDICATION

TO MY:

Precious and beloved parents who are always for me and who have always been my guiding light, shining on every single step in my life.

TO MY:

Wife for the help, support and encouragement.

TO MY:

Lovely sons M. Alhassan, Abdalaal, Matab, and Azam.

TO MY:

Friends and colleagues whom I feel about them with beautiful emotion.

ACKNOWLEDGEMENT

I have special debt of gratitude to all people who contributed much to the success of this study and made it possible and visible.

The thanks firstly and finally to Allah and my supervisor **Dr. Munsoor Mohammed Munsoor** for his kind and excellent guide and advice from start to end of this study. I would like to express my gratitude and sincere thanks to my helpful **Ustaz: Ismail A. Eltayib** Hematology Department (SUST).

Also I would like to thank my friend and colleagues **Mr. M. Alamin** who gave a help to me during the preparation of this study.

Lastly I would like to thank all who gave me help and special thanks for **Sudan University of Science and Technology (Hematology Department)** and the staff for providing me the facilities to carry out this research.

Abstract

This is a cross- sectional descriptive and analytical study, conducted at Khartoum Teaching Hospital during the period from first of November 2009 to June 2010. The aim of this study was to estimate the platelet count, Prothrombin time and partial thromboplastin time tests in Sudanese pregnant women who were referring to Khartoum Teaching Hospital (Obstetric Ward).

The study included seventy six (76) Sudanese females, 60 were and 16 were non pregnant. The 60 pregnant women who were apparently in good health were informed about the study and their consent for participation was obtained. The study population was divided into three groups according to the trimesters (first trimesters, second trimesters and third trimesters) each had the same number 20 pregnant women. As for the 16 non pregnant females samples were taking for the purpose of comparison.

Venous blood sample of five ml was taking (2.5 ml in EDTA containers and 2.5 in tri sodium citrate containers) 2.5 ml EDTA investigated for platelet count, and 2.5 tri sodium citrate for Prothrombin time and activated partial thromboplastin time tests.

Fully automated hematology analyzer (Sysmex) was used for platelet count and manual analysis for PT and APTT tests.

All pregnant women had mean values of platelet $215.4 \times 10^9/l$, PT = 12.8 seconds and APTT = 34.1Second compare with non pregnant women table

The results indicated that for pregnant women who were given the medical drugs (folic acid ,fefol) the platelets slightly decreased significant ($P = 0.038$) in comparison with those who did not take supplement .where as the

PT(P = 0.394), and the aPTT(P =0.546) were normal and consequently do not have significant values.

The results also showed that there was a decreased in the platelets count in all trimesters, in comparison with control. While PT was within normal range , for the aPTT the results showed a slight increase during three trimester and so it is insignificant, that is to say it is more than >0.05 .

النتائج

هذه دراسة مقطعية وصفية تحليلية تم إجراؤها في الفترة ما بين نوفمبر 2009 وحتى يونيو 2010 بمستشفى الخرطوم التعليمي لتقدير نسبة الصفائح الدموية، معدل البروثرومبين ومعدل الثرومبوبلاستين الجزئي في النساء السودانيات الحوامل اللاتي يترددن علي مستش في الخرطوم التعليمي (عذبر الولادة). شملت الدراسة عدد 76 من السودانيات الحوامل وغير الحوامل،

أخذت ستون (60) عينة دم من نساء حوامل بعد إخطارهن بهذه الدراسة وأهميتها وأخذت موافقتهن على المشاركة ثم قسمت النساء الحوامل إلى ثلاث مجموعات حسب مراحل الحمل الثلاث. ستة عشر (16) عينة دم عبارة عن معايرة أخذت من نساء غير حوامل. أخذت 5 مل من الدم من كل مشاركة في هذه الدراسة و قسمت إلى 2.5 مل في حاويات و 2.5 مل في حاويات تحتوي على سترات الصوديوم EDTA تحتوي على مانع تجلط الثلاثية.

لتحليل الصفائح الدموية وتم تحليل كل من زمن (Sysmex) تم استخدام جهاز البروثرومبين وزمن الثرومبوبلاستين الجزئي بالطريقة اليدوية.

أظهرت نتيجة التحليل أن معدل الفحوصات في النساء الحوامل كالتالي:

لتر $10^9 \times 215.4 = \text{X}$ الصفائح الدموية

زمن البروثرومبين = 12.8 ثانية

زمن الثرومبوبلاستين الجزئي = 34.1 الثانية

أن هناك (Fefol، Folic acid) بينما أوضح التحليل للنساء الحوامل اللاتي تعاطين الأدوية (اللاتي) $10^9 \times 238$ مقارنة بالنساء غيرا لحوامل $10^9 \times 0$ نقصاً في الصفائح الدموية (194.3) لايتعاطين الأدوية مما يدل على إن هذا النقص ذو دلالة إحصائية و قيمة معنوية تقدر بـ 0.038

أظهرت الدراسة أن لهما نفس قيمة المعدل الطبيعي PTT وال PT أما بالنسبة لنتيجة ال >ولا توجد دلالة إحصائية أو قيمة معنوية 0.05

وكما أظهرت الدراسة أن هناك نقص في معدل الصفائح الدموية في كل فترات الحمل الثلاث مقارنة بالمعدل الطبيعي، أما بالنسبة لمعدلات زمن البروثرومبين فإنها تكون

طبيعية م مقارنة بالمعدل الطبيعي، أما زمن الثرومبوبلاستين الجزئي فقد أظهرت الدراسة أن هناك زيادة طفيفة م مقارنة بالمعدل الطبيعي في كل فترات الحمل الثلاث وأنها ليست ذات دلالة إحصائية أو قيمة معنوية وكلها اكبر من 0.05 .

LIST OF ABBREVIATION

Item	Abbreviation
5 hydroxyl of adenine nucleotides with calcium ions ptomaine	5-HT
Activated partial thromboplastin time	aPTT
Adenosine diphoshate	ADP
Adenosine triphoshate	ATP
Anti thrombin	AT
chorionic villi sampling	CVS
collagen-ADP	COL-ADP
Collagen-epinephrine.	COL-Epi
Cyclic Adenosine monophoshate	C-AMP
Deep vein thrombosis	DVT
disseminated intravascular coagulation	DIC
Ethylene diamine tetra acetic acid	EDTA
Fibrin derivative products	FDBs
forward side scatter	FSC
Glycoprotein11b	GP1Ib
Glycoprotein1b	GPIb
glycoproteins	GPS
high-molecular-weight kininogen	HMWK
Human chronic gonadotorphin.	hCG
International normalize index	INR
international sensivity index	ISI
kaolin cephalin clotting time	KCCT
last menstrual period	LMP
logarithmic mean normal PT	LMNPT
nuchal translucency	NT
optical cytometer hydro focus free	OCHF
phospholipase enzymes	PLA ₂
plasma throboplastin component	PTC
Platelet factor 4	PF4
Platelet Function Analyzer	PFA

Platelet poor plasma	PPP
Platelets	Plts
prkallikrein	PK
protease activated receptors	PARs
proteins induced in vitamin K absence	PIVKA
Prothrombin time	PT
pulmonary embolism	PE
thrombin time	TT
thromboplastin time with kaolin	PTTK
Thrombopoietin	tpo
Thromboxane A ₂	TXA ₂
tissue factor	TF
Tissue factor pathway inhibitor	TFPI
tissue factor pathway inhibitor	TFPI
Von will brand disease	vWD
von Willebrand factor	vWf

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