

## الاستهلال

قال تعالى :

(وَأَنْزَلَ اللَّهُ عَلَيْكَ الْكِتَابَ وَالْحِكْمَةَ وَعَلَّمَكَ مَا لَمْ تَكُنْ تَعْلَمُ ۚ وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ عَظِيمًا )

صدق الله العظيم

(سورة النساء، الآية 113)

## **Dedication**

This work is dedicated to the soul of my parents .

To my family

To my friends

To everyone who helped and supported me

### **Acknowledgements**

I would like to express my sincere thanks and gratitude to my learned supervisor Dr. Fathelrahman Mahdi Hassan Gameel Associate Professor. Sudan University Of Science &Technology , College of Medical Laboratory Science for his close supervision , encouragement and support during conduction of this study .

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## **Abstract**

This study is a cross sectional study, conducted in Khartoum state during the period from December 2013 to July 2015 to determine lupus anticoagulant among Sudanese women with habitual abortion. 140 patients with three or more habitual abortion and 60 healthy pregnant women without history of abortion were selected as control group. The age was ranging between 17 -45 year in both groups. Patients and control groups were screened for the presence of LA and Fibrinogen level by using coagulometer (Coatron M2), ACA by using enzyme linked immunosorbent assay (ELISA) . The results were analyzed by using program Statistical Packages of Social Sciences version 21 (SPSS program ) and express as means , The results obtained showed that the means of LA, Fibrinogen level and ACA for patients ( $61.4 \pm 21.6$  sec), ( $265.28 \pm 118.9$  mg/100mL) and ( $242.5 \pm 124.3$  u/mL) respectively . The mean of LA, Fibrinogen level and ACA of control group was ( $36.422 \pm 4.6$  sec ), ( $255.1 \pm 68.5$  mg/100mL) and (  $40.4 \pm 4.51$  u/mL ) respectively . The study showed that 37 of the patients (26.4 %) had lupus anticoagulant, the geographical distribution of the 140 patients , 23 (16.4%) were from South Kordofan. The study concluded that the presence of LA was significantly associated with habitual abortion . The current study recommends measuring of LA and ACA in all women with 3 or more consecutive spontaneous abortion South Kordofan should be investigated in particular.

## ملخص الدراسة

هذه دراسة وصفية أجريت في ولاية الخرطوم في الفترة من ديسمبر 2013 الي يوليو 2005م لتحديد مضاد التجلط لوبص في النساء السودانيات المصابات بإجهاض متكرر ، تم اختيار مائة وأربعون مريضة مصابة بالإجهاض المتكرر ( ثلاث أو أكثر ) . كما تم أخذ ستون عينة من النساء الحوامل لا يعانين من مشاكل لها علاقة بفقدان الحمل كمجموعة ضبط ، تراوحت أعمارهن من 17 الي 45 سنة تم اختبار كل النساء في الدراسة لمضاد التجلط لوبص و الفبرينوجين باستخدام جهاز قياس التجلط ، (Coatron M2) مضاد الكارديوليبيين باستعمال تقنية ELISA وتم تحليل النتائج بواسطة برنامج الحزم الاحصائية للعلوم الاجتماعية إصدار 21 ، تم حساب المتوسط وكانت النتائج كالآتي : متوسط مضاد التجلط لوبص، الفبرينوجين ومضاد كارديوليبيين ( $21.6 \pm 61.4$  ثانية) ( $118.9 \pm 265.28$  ملجرام/100مل)، ( $124.3 \pm 242.5$  يونت/مل) على التوالي للمرضى ، وبينما كان متوسط مضاد التجلط لوبص ، الفبرينوجين ومضاد كارديوليبيين في مجموعة الضبط ( $4.6 \pm 36.4$  ثانية) ، ( $68.5 \pm 255.1$  ملجرام/100مل) ، ( $4.51 \pm 40.4$  يونت/مل) على التوالي .

وقد أظهرت الدراسة أن 37 من المريضات (26.4%) مصابات بهذا المضاد كما أظهرت الدراسة أن معظم المرضى من ولاية جنوب كردفان 23 (16.4%) خلصت هذه الدراسة إلي أن وجود مضاد التجلط لوبص له علاقة بالإجهاض المتكرر. توصي هذه الدراسة بقياس مضاد التجلط لوبص ومضاد كارديوليبيين لكل النساء اللاتي يتعرضن لفقدان الحمل المتكرر لثلاث مرات متتالية أو أكثر كما توعي بتخصيص دراسة عن نساء جنوب كردفان.

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## List of abbreviations

<b>Term</b>	<b>Explanation</b>
<b>AT</b>	Antithrombin
<b>ACA</b>	Anticardiolipin antibodies
<b>APC</b>	Activated protein C
<b>APL</b>	Antiphospholipid antibodies
<b>APTT</b>	Activated partial thromboplastin time
<b>DIL</b>	Dilution buffer
<b>dRVVT</b>	diluted Russell's viper venom
<b>ELISA</b>	Enzyme-linked immunesorbent assay
<b>EPCR</b>	Endothelial protein C receptor
<b>FDPs</b>	Fibrin degradation products
<b>GFL</b>	Glomerular filtration rate
<b>HMWK</b>	High=molecular-weight kininogen
<b>IgG</b>	Immunoglobulin G
<b>KCT</b>	Kaolin clotting time
<b>LA</b>	Lupus anticoagulant
<b>MAP</b>	Mean arterial pressure
<b>PAI1</b>	Plasminogen activator inhibitors 1
<b>PAI2</b>	Plasminogen activator inhibitors 2
<b>PAIs</b>	Plasminogen activator inhibitors
<b>PLG</b>	Plasminogen
<b>PNP</b>	Platelet neutralization procedure
<b>PT</b>	Prothrombin time
<b>POC</b>	Products of conception
<b>RFL</b>	Recurrent fetal loss
<b>RNA</b>	Ribonucleic acid
<b>SLE</b>	Systemic lupus erythematosus
<b>SPSS</b>	Statistical package of social sciences
<b>TF</b>	Tissue factor
<b>TT</b>	Thrombin time
<b>TFPL</b>	TF pathway inhibitors
<b>t-PA</b>	tissue plasminogen activator
<b>vWF</b>	Von-Willebrand factor