

Dedication

For my lovely parents

For my best Family

For my lovely brothers

For all my lovely friends

Acknowledgment

First ,I would like to thank my Merciful Allah for giving me the power and health to do this work . Foremost, I would like to express my sincere gratitude to my advisor Dr: Jalal for continuous support me all the time of research and writing of this thesis . I gratefully acknowledge my supervisor Dr : Elgari for making major amendments and correction that improve the thesis . A special appreciation is offered to Dr: Mrs. Elfatah, Mrs. Ahmad the head of the hematology Department, and Sudan heart center lab staff for their warm friendship and unrestricted help throughout this study .My Appreciation also extended to all staff Khartoum teaching hospital and research laboratory staff. My thanks also extended to Sudan University of Science and Technology for financial support . Last but not the least, I would like to thank my family : my parents, for giving birth to me and supporting me spiritually throughout my life .

Abstract

This is a cross-sectional descriptive and analytical study, conducted at Sudan Heart Center during the period of February to June 2011. The aim of this study was to assess the haemostatic parameters (Prothrombin time (PT), International normalized ratio (INR) and Activated partial thromboplastin time (APTT)) in Oral anti coagulated (warfare) people who attended Heart Center, One hundred warfarin administrated patients as study group, and twenty five (25) of healthy non warfarin administrated (control). The participants were informed about the study and agreed for participation. The study population was divided into four groups according to type of disease: RV +Repair, DVT, PE, AF. 1.8 ml of venous blood drained into 0.2 tri-sodium citrate container from each subject, these were tested for PT, INR and APTT level. Fully automated hematological analyzer (sysmex CA500) was used for analyzed PT, INR, APTT, and Statistical analysis showed significant increase in PT mean (13.09sec), INR mean (1.11), and PTT mean (31.38sec) in non warfarin administrated in comparison with warfarin administrate patient PT(35.90sec), INR (2.95), PTT (35.13sec) were P.value (0.000) (0.005) (0.000) respectively. There insignificant (P.value 0.43) was noted between the Age group (cases) in PT (sec) mean, and also was insignificant in PTT (sec) mean P.value (0.29) and insignificant in INR mean P. value (0.68). The study was also showed that there was insignificant in warfarin dose (mg) group in PT (sec) P.value (0.51), in INR P.value (0.58) and in PTT (sec) P .value (0.34). The result was significant in INR range compared with administrated warfarin were in control INR value (1.0) and in cases (2.37) p. value (0.000) and there was also significant between INR Range in cases (warfarin administrate) and control (non warfarin administrate) were (2—3), (1—2) respectively, P .value (0.000).

المواد والوسائل

هذه دراسة مقطعية وصفية وتحليلية. تم إجراؤها لتحديد تأثير الوارفارين على معدلات كفاءة تجلط الدم عند المرضى السودانيين المترددين علي مركز السودان للقلب في الفترة ما بين فبراير إلي يونيو 2011. تم إعلام مائة (100) مريض بأهداف البحث وخمس وعشرون اخرون (25) لا يستعملوا حبه الوارفارين وأخذت موافقتهم , بعد ذلك جمعت المعلومات منهم عن طريق الاستبيان من العمر ووزن الحبه بالمجرام وماذا اذا كانوا تاخذ اي ادوية اخرى لمرض اخر وذلك على اربع مجموعات حسب شهور النوع المرض الي يأخذ الوارفارين لمنع حدوث الجلطات . ثم أخذت مائة عينة دم 1.8 مل من كل مريض في حاويات تحتوي علي مانع التجلط سترات الصوديوم (الثلاثية سترات الصوديوم الثلاثيه مل 0.2) . ثم إجراء اختبارات عوامل التجلط . تم استخدام جهاز لقياس زمن البروثرومبين وزمن الثرومبوبلاستين الجزئ المنشط (CA-500) رقم (Sysmex) يعمل الجهاز أوتوماتيكيا, وحللت البيانات بأستخدام برنامج الحزم الإحصائية للعلوم INR ونسبه الاجتماعية نسخة رقم 14 للتحليل الإحصائي. و قد أظهرت النتائج الإحصائية أن متوسط أعمار (35.90) INR المرضى (43.3 سنة) , ومتوسط زمن البروثرومبين وزمن الثرومبوبلاستين و نسبه ثانيه) و(35.13 ثانيه) و(2.95) علي التوالي عند الذين يتناولون الوارفارين اما عند الذين INR لا يتناولون الوارفارين مجموع متوسط زمن البروثرومبين وزمن الثرومبوبلاستين و نسبه ثانيه) و(1.11) و(0.9 ثانيه 13) على التوالي , كما وُجدت نتيجة ذات دلالة إحصائية (31.38) وايضا وجدت نتيجة ذات دلالة احصائية بين الوارفارين و P.value (0.000),(0.005),(0.000) مقارنةً بأفراد أصحاء. كما وُجد أن كميته او وزن حبه الوارفارين تختلف INR (0.000) P.value بين المرضى, كما وجد ان متغيري جرعه الوارفارين وعمر المريض لا يحدث أثر في معدلات قياس كفاءه تجلط الدم, وايضا يوجد دلالة احصائية بين المرضى (يتناولون الوارفارين) والاصحاء P.value (0.000) ((لا يتناولون الوارفارين) في مدى المعدل العالمي (3—2) و(2—1) على التوالي

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LIST OF ABBREVIATIONS

NAME OF THE ABBREVIATIONS	ABBREVIATIONS
Adenine Phosphate	Adp
Atrial fibrillation	AF ,a-fib
Activated protein C	APC
Activated protein C	APC
Apolipo protein	Apo
Between	B/W
Congestive heart failure	CHF
Cytochrome P450	Cyp
Deep vein thrombosis	DVT
Pulmonary embolism	EP
Fibrin degradation products	FDP s
Glutamic plasminogen	Glu-PLG
International normalized ratio	INR
Plasminogen activator inhibitor type 1	PAI-1
Platelet activating factor	PAV
Protacyclin	PG

NAME OF THE ABBREVIATIONS	ABBREVIATIONS
Proteins formed in vitamin K absence.	PIVKA s
PhospholipaseA2	PLA2
Plasminogen	PLG
Prothrombin time	PT
Activated partial thromboplastine time	PTT
Replacement value	RV
Streptokinase	SK
Tissue factor pathway inhibitor	TFPI
Tissue factor pathway inhibitor	TFPI
Tissue plasminogen activator	t-PA
Thromboxane A2	TXA2
Urinary plasminogen activator	u-PA
Vitamin K epoxide reductase.	VKORC
Von Willebrand factor	VWF

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