

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال الله تعالى

وَفِي أَنْفُسِكُمْ أَفَلَا تُبْصِرُونَ

صدق الله العظيم

سورة الذاريات الآية 21

Dedication

This thesis is dedicated to my father, who taught me that the best kind of knowledge. It also dedicated to may mother, who tught me that even the largest task can be accomplished if it is done are step at a time. Finally, this thesis is dedicated at all those who believe in the richness of learning.

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All praise and thanks to Allah the Almighty. Who blessed me with courage for preparation and completion of this study.

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Abstract

This analytical case control study was done during the period of March 2012 to July 2012 in Khartoum state military hospital to determine the PT, APTT among hypertensive patients seventy patients (70) and thirty (30) normal controls were studied. A structured questionnaire was prepared which included the general information and laboratory investigation and an informal consent was obtained.

Blood, plasma samples were collected from hypertensive patients and normal healthy control for use in laboratory investigation. The result shown non significant difference ($P= 0.22$) between the mean level of hypertensive patient (15.3 Sec) and control (15.5 Sec) in prothrombin time (PT), and there is non significant difference ($p= 0.20$) between the mean level of hypertensive patient (32.4 Sec) and control (33.4 Sec) in activated partial thromboplastin time (APPT).

The Result obtain indicated that measurement of prothrombin time (PT) and activated partial thromboplastin. (APTT) were unnecessary when evaluating a hypertensive patients in whom there was no clinical evidence of haemostatic abnormality an approach would eliminate the need for most of coagulation test done in these patients such as D.Dimar and Fibrinogen level.

ملخص الدراسة

أجريت هذه الدراسة التحليلية خلال الفترة من مارس 2012 الى يوليو 2012 في ولاية الخرطوم بمستشفى السلاح الطبي لتحديد زمن البروثرومبين و زمن الثرومبوبلاستين الجزئي المنشط بين مرضى ارتفاع ضغط الدم. شملت الدراسة سبعين مريضاً (70) وثلاثين (30) من المعادلين الطبيعيين من الجنسين, تم جمع البيانات الخاصة بمرضى ارتفاع ضغط الدم والمعادلين الطبيعيين من خلال إستبيان تم إعداده يشتمل على معلومات عامة وعلى التحاليل المعملية.

تم جمع عينات الدم , البلازما من كل المرضى والمعادلين الطبيعيين لإجراء الفحوصات المعملية. أظهرت النتائج عدم وجود فرق كبير بين المرضى والمعادلين الطبيعيين ($P= 0.22$) في متوسط زمن البروثرومبين بين مرضى ارتفاع ضغط الدم (Sec 15.3) والمعادلين الطبيعيين (15.5 Sec) وأيضاً لا يوجد فرق كبير بين مرضى ارتفاع ضغط الدم والمعادلين الطبيعيين ($P = 0.20$) في متوسط زمن الثرومبوبلاستين الجزئي المنشط بين مرضى ارتفاع ضغط الدم (32.4Sec) والمعادلين الطبيعيين (33.4 Sec).

أشارت النتائج المتحصل عليها أن قياس زمن البروثرومبين وقياس زمن الثرومبوبلاستين الجزئي المنشط غير ضرورية عند تقسيم مرضى ارتفاع ضغط الدم عندما لا يوجد أي دليل سريري يشير لى وجود أي خلل في عملية الإرتقاء , فمثل هذا النهج من شأنه أن يلغي الحاجة الي أكثر من ذلك في إختبارات تخثر هؤلاء المرضى مثل D. Dimer ومستوى الفيبرينوجين.

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Abbreviations

| | |
|------------------------|---|
| ACE | Angiotensin – converting enzyme |
| ACT | Activating clotting time |
| ADP | Adenine diphosphate |
| APTT | Activated partial thromboplastin time |
| ATP | Adenine triple phosphate |
| CA⁺² | Calcium ions |
| CBC | complete blood count |
| CSF | Colony stimulating factor |
| DIC | Disseminated intravascular coagulation |
| F | Fragment |
| FDPs | Fibrin degradation products |
| FL | Femtoliter |
| GP | Glycoprotein |
| HMWK | High molecular Wight kinogenin |
| JNC₇ | Joint national committee of prevention , detection , evaluation and treatment of high blood pressure |
| Mm | Millimetre |
| mm Hg | Millimetre of mercury |
| PA/s | Plasminogen activation inhibitor |
| PF3 | Platelet factor 3 |
| PLG | Plasminogen |
| PPP | Platelet poor plasma |
| PT | Prothrombin time |
| R.E.S | Reticuloendothelial system |
| SPSS | Statistic package for social science program |
| TT | Thrombin time |
| TXA₂ | Thromboxan A₂ |
| VIII:C | Coagulation factor Eight |
| VWF | Vonwillbrand factor |
| VWF :Ag | Vonwillbrand factor antigen |

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