

Dedications

This work is dedicated to my family, to my dear teachers with whom I spent my training period

To my dear colleagues in the Sudan University of Science and Technology

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Abbreviations

AFP	Alpha Fetoprotein
ALP	Alkaline Phosphatase
ALT	Alanine amino Transaminase
AST	Aspartate amino Transaminase
BCG	Bromo Cresol Green
CTG	CardioTocoGraphy
DIC	Disseminated Intravascular Coagulopathy
GFR	Glomerular Filtration Rate
HCG	Human ChorionicGonado trophin
ISSHP	International Society for the Study of Hypertension in Pregnancy
MAP	Mean Arterial pressure
NAD	Nicotinamide Adenine Dinucleotide
NADH	Reduced Nicotinamide Adenine Dinucleotide
PET	Pre-eclamptic Toxemia
PIH	Pregnancy Induced Hypertension
PT	Prothrombin Time
SLE	Systemic Lupus Erythematosus
TSH	Thyroid Stimulating Hormone

Abstract

The value of transaminases, total protein and albumin as indicator of severity of pre-eclampsia among Sudanese patients was studied in the period 1st May to end of October 2006. It was crosssectional test and control study.

The Study was carried out as a multi center study in Khartoum state in different maternity units, including, Khartoum Teatching Hospital and Omdurman maternity Hospital.

Information were collected from the patients by taking history through a questionnaire .laboratory examination and analysis of plasma transaminases, total protein and albumin were done. Urine was test for protein.

A total of 50 patients admitted with pre-eclampsia were compared with 30 ladies with normal pregnancy, both were selected at third trimester of pregnancy.

Most of the patients were primgravida in the age group between 18 to 39 years. The control groups match the test group. The result obtained for both groups were statistically analyzed using T test correlation.

The average value of plasma ALT among the control group was 11.03u /L compared to 47.74u/l in those patients admitted as cases of pre-eclampsia and the average value of plasma AST among the control group was 10.166U /L compared to 42.66u/L in those patient admitted as cases of pre eclampsia. The average value of plasma Total protein among the control group was 72.56g /L compared to 52.04g/L in those patient admitted as cases of pre eclampsia , the average value of plasma albumin among the control group was 43.26g /L compared to 30.2g/L in those patients admitted as cases of pre-eclampsia . The results obtained showed that there were significance difference between plasma transaminases,total protein and albumin in control groups and test groups ($p<0.05$). In conclusion , the study confirms that the value of plasma transaminase, total protein and albumin have good correlation with severity of pre-eclampsia.

هذه الدراسة أجريت على خمسين مريضة من حالات ارتفاع ضغط الدم المصاحب للحمل خلال الفترة من الأول من مايو حتى آخر أكتوبر عام 2006م

أجريت الدراسة في عدد من المستشفيات في العاصمة القومية والتي تشمل كل من مستشفى الخرطوم التعليمي ، مستشفى بحري التعليمي ومستشفى الولادة أم درمان وقد تم اختيار مريضات ارتفاع ضغط الدم المصاحب للحمل من ضمن المريضات المتواجدة في اقسام النساء والتوليد بهذه المستشفيات .

تمت مقارنة هذه الحالات بعدد ثلاثين من الحوامل الالئي لا يعانين من ارتفاع ضغط الدم المصاحب للحمل و قد كان الهدف التوصل الى

1. تحديد متوسط انزيمات الكبد والبروتين في الحالات المستعملة في الدراسة
2. تقييم أهمية انزيمات الكبد والبروتين كمؤشر لخطورة حالات ارتفاع ضغط الدم المصاحب للحمل

تم جمع المعلومات عن طريق استبيان وفحص سريري للحالات واجراء فحص معملي لتحديد تركيز الانزيمات والبروتين في الدم وفي البول معظم الحالات التي تم اختيارها من المرضى والاصحاء كن في الحمل الأول وتتراوح اعمرهن بين 18 الى 39 عاماً. تم تحليل النتائج احصائياً بإستخدام اختبار (t).

و قد تم قياس كل من انزيمات الكبد ترانس امينيز بايروفيد بتركيز ذات وسط حسابي 11.033 وحدة /لتر في الاصحاء و 47.74 وحدة /لتر في المرضى والترانس امينيز استيت بتركيز ذات وسط حسابي 10.166 وحدة /لتر في الاصحاء. 42.66 وحدة /لتر في المرضى وتم قياس كل من البروتين الكلى في البلازما بتركيز ذات وسط حسابي 56.72 جرام لكل لتر في الاصحاء مقارنة مع 04.52 جرام /لتر في المرضى ووجد ان متوسط تركيز الالبيومين هو 26.43 جرام /لتر في الاصحاء مقارنة بالوسط الحسابي 2.30 جرام /لتر في المرضى. اوضحت النتائج انه يوجد

اختلاف ذو معنى في نتائج الترانس امينيز ، البروتين الكلي والالبيومين و قيمة فرضية الاحتمال الاحصائي أقل من (). أوضحت الدراسة بأن هناك توافق بين حالة التسمم الارتعاجي في الحمل و قيمة الترانس امينيز والبروتين الكلي والالبيومين .

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