

Dedication

To.....

*My Family „,Father, Mother, Grandmother, Sister and
Brother.*

To.....

*Friends and Colleagues, whom stood firm behind me and
gave a great push forward*

To.....

*People whom participated fully and helped me a lot to
achieve this work.*

Acknowledgment

Thanks to Allah that my work was brought to the reality. To the memory of my supervisor Dr. Mohammed Abdelrahim Abd Allah who started with me from the zero level. He was the one who direct me to this thesis important topic, so I am really grateful to him. My great thanks to Dr. Nasser eldin M.A Shrif my co-supervisor

I would like to thanks all the people whom have been a positive influences, those whom helped me to seek my way to a solid ground and stand on it, also thanks to all people whom seemed to be a negative influences, they taught me how to be patient, and how to be a better person.

Finally, Thanks my colleagues in Khartoum Teaching Hospital for their support.

Abstract

This is a descriptive, analytical cross- sectional study aimed to estimate plasma urea and albumin levels in Sudanese hypertensive patients in whichfifty samples were collected from patients with hypertensionand thirty samples as control group (non- hypertensive). The patients samples were collected from Aldesogi Specialized Hospital during period from March (2014) to July (2014).Levels of plasma Urea and Albumin were measured in each group by Berthelot method for urea and Bromocresol green method for albumin.

Mean and SD were calculated and data were analyzed using t.test and person correlation.

This study showed that there was a significant increased between urea in hypertensive patients (mean= 42 ± 6.3 mg/dl)and control group (mean= 28 ± 1.0 mg/dl) with P-value(0.000).

Also a significantincreased between albumin in hypertensive patients (mean= 4.83 ± 0.39 g/dl) andcontrol group (mean= 3.96 ± 0.51 mg/dl) with P-value (0.000).

The present study showed there was a moderate positive correlation between urea, albumin and duration of hypertension ($r=0.579$, $P=0.000$). ($r= 0.532$, $P=0.000$) respectively.

This study concluded that urea and albumin is increased in hypertensive patients.

Study recommended regular measure of urea and albumin in hypertensive patients.

المستخلص

هذه الدراسة وصفية تحليلية مقطعيه هدفت لتقدير مستويات البولينا والالبيومين في بلازما الدم لدى مرضى ارتفاع ضغط الدم السودانيين حيث جمعت ٥٠ عينة من المرضى الذين يعانون من ارتفاع ضغط الدم و ٣٠ عينة ضابطة (اصحاء ظاهرياً). تم جمع عينات المرضى من مستشفى الدسوقي التخصصي خلال الفترة من شهر مارس(٢٠١٤) إلى يوليو(٢٠١٤).

وقد تم قياس معدل البولينا والالبيومين في كل مجموعة وأظهرت طريقه القياس أن هناك زيادة ذات دلالة إحصائية في معدل البولينا بين عينات مرضى ارتفاع ضغط الدم (متوسط = $٤٢,٣ \pm ٤,٦$ ملغ / دل) والبولينا في المجموعة الضابطة (متوسط = $٢٨,٢ \pm ١,٠$ ملغ / دل) مع قيمة معنوية (٠,٠٠٠).

وأظهرت النتائج أن هناك زيادة ذات دلالة إحصائية في معدل الالبيومين بين عينات مرضى ارتفاع ضغط الدم (متوسط = $٨٣,٤ \pm ٤,٣$ ملغ / دل) والالبيومين في المجموعة الضابطة (متوسط = $٩٦,٣ \pm ١,٥$ ملغ / دل) مع قيمة معنوية (٠,٠٠٠).

كما أظهرت الدراسة وجود إرتباط متوسط موجب بين معدل الالبيومين والبولينا في البلازما وفترة الاصابة بمرض ارتفاع ضغط الدم (معامل بيرسون لالرتباط = ٠,٥٧٩، وقيمة المعنوية = ٠,٠٠٠) للبولينا أما الالبيومين (معامل بيرسون لالرتباط = ٠,٥٣٢، وقيمة المعنوية = ٠,٠٠٠)

خلصت الدراسة بان هناك زيادة في معدل البولينا والالبيومين عند مرضى ارتفاع ضغط الدم. أوصت الدراسة باهميه الفحص الدوري للبولينا والالبيومين لدى مرضى ارتفاع ضغط الدم.

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