

# DEDICATION

*To my father, who did not spare on the day with something*

*To the one who taught me patience and success*

*My mother*

*And to whom I live for making their dreams true*

*My children*

*My husband*

*My brothers and my sisters*

*I dedicate this simple work*

***Aisha***

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# Abstract

This was descriptive analytical study done in Ibn Sina and hospital of tropical diseases at Khartoum state in period from March 2012 to August 2012.

The objective of this study was to assess the plasma activity of AST and ALT in Sudanese patients with liver cirrhosis.

The subject on this study were 50 patients with liver cirrhosis (42 of them were male, 8 female). The age of the patients ranged from 10-76 years, there was 50 apparently healthy individuals used as control group.

All patients were suffering from lack of appetite, 25 patients suffering from jaundice, vomiting and haemoptysis, 23 of them had diarrhea or melaena, 24 were anemic and 48 of them suffering from abdominal swelling and pain.

2.0ml of blood sample from patients and control subjects were collected in lithium heparin container to estimate activity of AST and ALT by using Biosystem's reagents and instruments.

The level of AST and ALT were significantly increased in patient with liver cirrhosis as compared to control group ( $p=0.000$ ) for both. and AST /ALT ratio was significantly increased as compared to control group ( $p=0.006$ )

AST level were not affected by presence of ascites ( $p$ -value 0.725). or portal hypertension (0.71), while ALT level was significantly affected by presence of portal hypertension ( $p$ -value 0.001) and not affected by presence of ascites ( $p=0.06$ )

There was insignificant difference in level of AST, ALT and AST/ALT ratio in different cause of liver cirrhosis ( $p=0.657$ ), ( $p=0.66$ ), ( $p=0.646$ ) respectively.

Duration was insignificantly affected the level of AST ( $p=0.57$ ). ALT ( $p=0.441$ ) and AST/ALT ratio ( $p=0.911$ ).

## مستخلص الدراسة

هذه الدراسة وصفية تحليلية مقامة بمستشفى ابن سينا ومستشفى طب المناطق الحارة في ولاية الخرطوم في الفترة من مارس إلى أغسطس 2012.

وكان الهدف من هذه الدراسة هو تقييم نشاط بلازما AST و ALT في السودانيين المرضى بتليف الكبد.

في هذه الدراسة 50 مريضا بتليف الكبد (42) منهم من الذكور و 8 من الإناث تراوحت أعمار المرضى من 10-76 سنة ، كان هناك 50 أصحاء استخدموا في مجموعة المقارنة.

جميع المرضى كانوا يعانون من فقدان الشهية. 25 مريضا يعانون من القيء، واليرقان، ونفث الدم، 23 منهم يعانون من الإسهال أو maelena، و 24 يعانون من فقر الدم و 48 منهم يعانون من انتفاخ وألم البطن .

وقد تم جمع عينات الدم من المرضى والأصحاء في حاوية lithium heparin لتقدير نشاط AST و ALT باستخدام جهاز ال Biosystem.

أوضحت نتائج الدراسة إن هنالك زيادة كبيرة في نشاط AST و ALT في المريض بمرض تليف الكبد بالمقارنة مع مجموعة المراقبة ( $P = 0.000$ ) لكل منهما. وأيضا نسبة ALT / AST ( $P = 0.006$ ).

ولم تتأثر AST من وجود الاستسقاء ( $P = 0.725$ ). أو فرط ضغط الدم البابي ( $P = 0.71$ )، بينما تأثرت ALT بشكل كبير من ارتفاع ضغط الدم البابي ( $P = 0.001$ ) ولم تتأثر بالاستسقاء ( $P = 0.06$ ).

لا يوجد تأثير في مستوى AST، ALT و نسبة ALT / AST في مختلف الأسباب المؤدية لتليف الكبد ( $P = 0.657$ )، ( $P = 0.66$ )، ( $P = 0.646$ ) على التوالي.

ولا يوجد تأثير على مستوى AST ( $P = 0.57$ ). ALT ( $P = 0.441$ )، و AST / ALT نسبة ( $P = 0.911$ ) باختلاف مدة الإصابة بالمرض.

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