

الآية

سَمِ اللّٰهَ الرَّحْمٰنَ الرَّحِيْمَ

قال الله تعالى

مَثَلُ الَّذِينَ اتَّخَذُوا مِنْ دُونِ اللّٰهِ اَوْلِيَاءَ كَمَثَلِ الْعَنْكَبُوتِ اتَّخَذَتْ بِئْتَهَا ^طوَانَّ
اَوْهَنَ الْبُيُوتِ لَبَيْتُ الْعَنْكَبُوتِ ^ط لَوْ كَانُوا يَعْلَمُونَ

صدق الله العظيم

سورة العنكبوت: الآية 41

DEDICATION

To my beloved parents

To my respective brothers and sisters

To my dear friends and colleagues

ACKNOWLEDGEMENT

All thanks to my god ALLAH the start to end.....

I would like to acknowledge the guidance of my supervisor :**Prof. Humodi Ahmed Saeed**,who guide me through out my way. Thanks extended to all members of Microbiology Department and Research Laboratory- Sudan University of Science and Technology. A lot of thanks to my colleagues Babbiker Mohammed and Hajer Ali. Last but not least, my thanks to all patients who participated in this study with my best wishes for them to be well and good as soon as possible.

ABSTRACT

Hepatitis C is an infectious disease caused by Hepatitis C Virus (HCV) which affects the liver and may cause hepatocellular carcinoma. The objective of this study was to determine the frequency of HCV among hepatocellular carcinoma patients. The study was conducted during the period between January and April 2015.

A total of seventy blood samples (n=70) were obtained from patients with hepatocellular carcinoma. The patients were hospitalized in four hospitals and center in Khartoum State. These were Soba University Hospital, Ibdrhim Malik Teaching Hospital, IbnSina Specialized Hospital and Antalya Diagnostic Center. Five ml venous blood were collected from each patient. serum was obtained by centrifugation at 3000 rpm for 5 min. The sera were examined for the presence of HCV antibodies using Enzyme Linked ImmunoSorbant Assay (ELISA).

The results revealed that out of 70 blood samples investigated, 14(20%) were positive for HCV antibodies. The rest 56(80%) were negative. Of the positive blood samples, 7(19%) out of 37 (53%) obtained from males and 7(21%) out of 33(47%) from females.

The study concluded that the infection of HCV in Hepatocellular carcinoma patients is not so high. The level of infection is higher in females than males.

Further studies with large number of samples and more advanced technique are required to validate the results of the present study.

المستخلص

إلتهاب الكبد الفيروسي ج مرض معدي يسببه فيروس التهاب الكبد الفيروسي ج الذي قد يتسبب في سرطان خلايا الكبد.

الهدف من هذه الدراسة هو تحديد مدي انتشار فيروس إلهاب الكبد ج بين المرضي المصابين بسرطان خلايا الكبد في ولاية الخرطوم في الفترة بين يناير إلي أبريل 2015.

جمعت 70 عينة دم من مرضي مصابين بسرطان خلايا الكبد من أربع مستشفيات ومركزشملت مستشفى سوبا الجامعي, ومستشفى إبراهيم مالك التعليمي ومستشفى ابن سينا التخصصي ومركز أنطاليا التشخيصي.

جمعت 5 مل من الدم من كل مريض, ثم فصل منها المصل بإستخدام الطرد المركزي عند 3000 دورة في الدقيقة لمدة 5 دقائق. كل العينات خضعت للفحص بحثا من الأجسام المضادة لفيروس إلهاب الكبد ج بواسطة تقنية إلليزا.

أظهرت النتائج أنه من مجموع 70 عينة فحصت, فقط 14 (20%) عينة أظهرت نتائج إيجابية بينما 56 (80%) عينة أظهرت نتائج سلبية, عينات الدم الايجابية 7 (19%) من أصل 37 (53%) تم الحصول عليها من الذكور و 7 (21%) من أصل 33 (47%) تم الحصول عليها من الإناث.

خلصت الدراسة إلي أن عدوي فيروس إلهاب الكبد ج في مرضي سرطان خلايا الكبد ليست عالية, وأن نسبة الإصابة كانت في الاناث أعلي منها في الذكور.

يوصي بدراسات إضافية بعدد كبير من العينات وبتقنيات متقدمة للتحقق من نتائج هذه الدراسة.

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List of Abbreviations

HCC.....	Hepatocellular Carcinoma.
IRES.....	Internal ribosomal entry site.
ARFP.....	Alternate reading frame protein.
RIBA.....	Recombinant immunoblot assay.
ELISA.....	Enzyme-linked immunosorbent assay.
EIA.....	Enzyme immune assay.
ALT.....	Alkaline phosphatase.
AFP.....	Alpha-feto protein.
PCR.....	Polymerase chain reaction.
RFLP.....	Restriction fragment length polymorphism.
CT scan.....	Computed tomography.
MRI.....	Magnetic resonance imaging.