

## **Abstract**

This study was carried out between April to June 2015 to detect the frequency of Hepatitis C Virus infection among Type2 Diabetic patients. Ninety two blood samples were collected from Type2Diabetic (T2D) Patients on Asdigaa AL-Sukkary Medical Centre, White Nile State.

Fifty (54.3%) of the 92 samples were female while, 42 (45.7%) were male. Plasma was separated from blood by centrifugation, the Hepatitis C virus antibody was detected in patient plasma by using a fourth-generation Enzyme-linked Immunosorbent assay (ELISA). The results showed that only 7 (7.6%) of specimens were positive while 84 (92.4%) were negative with no significant difference between the male 4 (4.3%) and female 3 (3.3%) groups.

In conclusion this study showed that there was Low frequency of HCV among Type2 diabetic patients in patients who admitted to Asdigaa AL-sukkary Medical Center, White Nile state, with insignificant risk factors associated with HCV sero-positive among T2D patients.

Farther studies with large sample size and modern diagnostic technique such as Polymerase chain reaction are needed to confirm these results.

## ملخص الاطروحة

أجريت هذه الدراسة في الفترة ما بين ابريل إلى يونيو 2015م للتحقيق في احتماليه وجود التهاب الكبد الفيروسي سي في مرضى السكري من النوع الثاني. تم جمع اثنان وتسعون عينة من مرضى السكري من النوع الثاني في مركز اصدقاء السكري الطبي بولاية النيل الابيض. خمسون (54.3%) من الاثنى وتسعين المشاركين في الدراسة نساء و 42 (45.7%) رجال. تم فصل البلازما من الدم بواسطه جهاز الطرد المركزي و تم الكشف عن الاجسام المضاده لفيروس الكبد الوبائي سي من بلازمه المرضى بواسطه تقنية الإنزيم المناعي المرتبط (الإليزا).

أوضحت الدراسة أن فقط 7 (7.6%) من العينات كانت ايجابيه و 84 (92.4%) من العينات كانت سلبيه مع عدم وجود أهميه في الاختلاف ما بين الرجال 4 (4.3%) والنساء 3 (3.3%). وقد خلصت الدراسه الى انخفاض معدل انتشار التهاب الكبد الفيروسي سي في مرضى السكري من النوع الثاني في مركز اصدقاء السكري الطبي بولاية النيل الابيض كما لا توجد اهميه للعوامل الاخرى في الاقتران بين زوي المصل الايجابي لألتهاب الكبد الفيروسي سي وسط مرضى السكري من النوع الثاني.

يجب اجراء دراسات اخرى على هذه الدراسه مع زياده عدد المرضى المشاركين و إستخدام طرق تشخيصيه حديثه كجهاز انزيم البلمره المتماكب للتأكد من صحه النتائج.

## **ABBREVIATION**

HCV: Hepatitis C Virus

DM: Diabetes Mellitus

T2DM: Type2 Diabetes Mellitus

T2D:Type2 Diabetes

IFG: Impaired Fasting Glucose

HCC: Hepatocellular Carcinoma

IR: Insulin Resistance

gp: Glycoprotein

SRB1: Scavenger Receptor Class B member1

MW: Membranous Web

LDs: Lipid droplets

EIA: Enzyme Immune assay

ELIZA: Enzyme Linked Immune sorbent assay

TMB: Tetra methyl Benzidine

HRP: Horse radish peroxides

RNA: Ribonucleic Acid

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