شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

HANAA ALY

Dickkopf-1(DKK1): A Diagnostic Marker for Hepatocellular Carcinoma (HCC) On Top Of Chronic Hepatitis C Virus Related Diseases

Thesis

Submitted for Partial Fulfillment of Master Degree in INTERNAL MEDICINE

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AASLD	American Association for the Study of Liver Disease
AFP	Alpha fetoprotein
AJCC	American Joint Committee on Cancer
APASL	Asian Pacific Association for the Study of the Liver
BCAAs	Branched chain amino acids
BCLC	Barcelona Clinic Liver Cancer
CLD	Chronic liver diseases
CLIP	Cancer of the Liver Italian Program
CNNA	Culture-negative neutrocytic ascites
CPT	Child-Pugh-Turcotte
CT	Computed tomography
DALYs	Disability Adjusted Life Years
DCP	Des-gamma carboxy prothrombin
DILI	Drug-induced liver injury
DKK1	Dickkopf-1
EASL	European Association for the Study of the Liver
EGFR	Epidermal growth factor receptor
ESMO	European Society for Medical Oncology
EVL	Endoscopic variceal ligation
FGF	Fibroblast growth factor
GGT	Gamma-glutamyl transferase
GP73	Golgi protein 73
GPC3	Glypican-3
HAV	Hepatitis A Virus
HBeAg	Hepatitis B virus e antigen
HBsAg	Hepatitis B virus surface antigen

HBV	Hepatitis B virus
HCC	Hepato cellular carcinoma
HCV	Hepatitis C virus
HE	Hepatic encephalopathy
HGF/SF	Hepatocyte growth factor/scatter factor
HR	Hepatic resection
HSP70	Heat-shock protein 70
HVR1	Hyper variable region 1
IBM SPSS	Statistical Package for Social Science
IHVR	Intra hepatic vascular resistance
LC	Liver cirrhosis
LI-RADS	Liver Imaging Reporting and Data System
MELD	Model of End-Stage Liver Disease
MRI	Magnetic Resonance Imaging
MRP-1	Musashi RNA-binding protein 1
MWA	Microwave ablation
NAFLD	Nonalcoholic fatty liver disease
NASH	Non-alcoholic steatohepatitis
NCCN	National Comprehensive Cancer Network
NS	Non significant
PCR	Polymerase chain reaction
qRT-PCR	Quantitative real-time polymerase chain reaction
RFA	Radiofrequency ablation
RT	Radiation therapy
S	Significant
SBP	Spontaneous Bacterial Peritonitis
SCCA	Squamous cell carcinoma antigen
SVR	Sustained virological response

TACE	Trans arterial chemo embolization
TCF	T-cell factor
TGF-Beta1	Transforming Growth Factor-Beta1
TIMP 1	Tissue inhibitor of metalloproteinase-1
TSGF	Tumor-Specific Growth Factor
US	Ultrasound
VEGF	Vascular endothelial growth factor

INTRODUCTION

GLOBOCAN estimates that in 2018, approximately 841,000 new cases of liver cancer and 782,000 related deaths were reported, marking liver cancer as the sixth most commonly diagnosed cancer and the fourth leading cause of cancer-related death worldwide. Hepatocellular carcinoma is the most prevalent liver neoplasm, comprising 75 to 85% of all cases. HCC usually occurs in the setting of cirrhosis resulting from different etiological factors (i.e., chronic alcohol consumption, chronic hepatitis B and C viral infection, and obesity) ***(Bray et al., 2018)***

In Egypt, HCC constitutes a significant public health problem. Where it is responsible for 33.63% and 13.54% of all cancers in males and females respectively. Hepatocellular carcinoma occurs in a number of preexisting conditions that commonly includes hepatitis C and B, alcoholic and nonalcoholic cirrhosis. This had been strongly linked to the hepatitis C virus epidemic that affected around 10 - 15% of the Egyptian population during the last 3 decades, and was reported as the highest prevalence of HCV in the world ***(Elghazaly et al., 2018)***

There has been a remarkable increase in the proportion of hepato cellular carcinoma among chronic liver diseases patients. This rising proportion may be explained by the increasing risk factors as hepatitis C virus infection and hepatitis B virus infection ***(Kanwal et al., 2011)***

The diagnosis of HCC could be radiological and/or laboratory. Radiological diagnosis depend s largely on ultrasonography, triphasic compuated and dynamic magnetic resonance imaging ***(Dodd et al., 1992)***

Laboratory diagnosis of HCC is done either by measurement of circulating biomarkers or by fine needle cytology ***(Debruuyne et al., 2010)***

The American Association For the Study of Liver Diseases guideline recommends surveillance for individuals with cirrhosis are liver ultrasound with or without Alfa Fetoprotein every 6 months, because most of the studies showed a benefit of the combination of US and AFP in improving overall survival. AFP provides a sensitivity of around 60% and a specificity of around 90% ***(Singal et a., 2014; Gupta et al., 2003)***

Because AFP has poor sensitivity for identifying HCC, AASLD recommends against using it alone to screen for HCC in high-risk patients**.** More data suggested strategies to increase