Dermatological and Ocular Manifestations of Chronic Liver Disease in Pediatrics

Thesis

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بسم الله الرحمن الرحيم

"قَالُوا سُبْحَانَكَ لاَ عِلْمَ لَنَا إِلاَّ مَا
عَلَّمْتَنَا
إِنَّكَ أَنتَ ۘ الْعَلِيمُ الْحَكِيمُ"

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LIST OF ABBREVIATIONS

ADH	Antidieritic hormone
AIDS	Acquired immune deficiency syndrome
ALT	Alanine aminotranseferase
ANA	Antinuclear antibody
AP	Alkaline phosphatase
AR	Autosomal recessive
AST	Aspartate aminotranseferase
BCVA	Best corrected visual acuity
BFGF	Basic fibroblast growth factor
BP	Blood pressure
Ca	Calcium
CBC	Complete blood count
CCV	Cutaneous cryoglobulinemic vasculitis
CHC	Chonic hepatitis C
CLD	Chronic liver diseases
CMV	Cytomegalovirus
CNS	Central nervous system
CT	Computerized tomography
D.Bil	Direct bilirubin
DM	Diabetes mellitus
DNA	Deoxyribonucleic acid
DSRS	Distal splenorenal shunt
EBV	Epstein-Barr virus
EEG	Electro encephalogram
EHM	Extrahepatic manifestations
ERCP	Endoscopic retrograde cholangiopancreatography
GGT	Gamma-glutamyltransferase
GIT	Gastrointestinal tract

H&E	Hematoxylin and eosin
HBeAb	Hepatitis B envelope antibodies
HBeAg	Hepa V lope antigen
HBG	Hemoglobin
HBsAG	Hepatitis B surface antigen
HBV	Hepatitis B virus
HBV	Hepatitis B virus
HCC	Hepatocellular carcinoma
HCT	Hematocrit
HCV	Hepatitis C virus
HCV	Hepatitis C virus
HE	Hepatic encephalopathy
HRS	Hepatorenal syndrome
HS	Highly significant
HVPG	Hepatic vein pressure gradient
I.O.P.	Intraocular pressure
INR	International normalized ratio
Kgm	Kilogram
LP	Lichen planus
Lt	Left
MC	Mixed cryoglobulinemia
MCHC	Main corpuscular hemoglobin concentration
MCV	Main corpuscular volume
MRCP	magnatic retrograde cholangiopancreatography
MRI	magnetic resonance imaging
N	Number
NPV	Negative predictive value
NS	Non significant
P	Phosphorus
PAN	polyarteritis nodosa
PBC	Primary biliary cirrhosis
PCT	Porphyria cutanea tarda
PELD	Pediatric end-stage liver disease

	score
PMN	Polymorpho-Nuclear Leukocyte
PPV	Positive predictive value
PT	Prothrombine time
PTT	Partial thromboplastin time
RBC	Red blood cells
Rt	Right
S	Seconds
SA	Spider angioma
SBP	Spontaneous bacterial peritonitis
SD	Standard deviation
Sig.	Significant
SLE	Systemic lupus erythematosus
SPSS	Statistical program for social science
SS	Sjogren Syndrome
t(Z)	Z-test
T.Bil	Total bilirubin
TB	Tuberculosis
TIBC	Total iron binding capacity
TIPS	Transjugular intravenous portosystemic shunting
U/S	Ultrasound
UDCA	Ursodeoxycholic acid
URO-D	Uroporphyrinogen decarboxylase
VEGF	Vascular endothelial growth factor
WBC	White blood cells
WHVP	Wedge hepatic venous pressure
X2	Chi square test
α1-AT	Alpha1-Antitepsin

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INTRODUCTION

Chronic liver disease is a major health problem in Third World countries and is responsible for major burden of disease presenting to hospitals ***(Malik and Tariq, 1993).***

Liver disease in pediatrics is one of the most significant causes of morbidity and mortality in this age group and includes a broad spectrum of disorders such as infections, developmental abnormalities, metabolic and neoplastic disorders that finally result in hepatic dysfunction and cirrhosis ***(Monajemzadeh et al., 2009).***

Among all the extrahepatic manifestations of liver diseases, the cutaneous manifestations are the most common. In addition, they are easily recognizable and may provide the first clues of liver disease allowing for early diagnosis and therapy ***(Ghosn and Kibbi, 2008).*** Dermatological manifestations occupy a central place and at times point to etiology of disease ***(Agnello et al., 1992).***

Hepatobiliary disease can cause cutaneous manifestations in several ways; liver disease may cause skin changes, the skin and liver may be involved by the same pathologic process, skin disease may cause liver