ORIGINAL ARTICLE

Sonographic Appearance of Chronic Liver Disease

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ABSTRACT

Background: Chronic liver disease has high prevalence almost all over the world, is the irrecoverable disease of the liver; finally it causes necrosis of liver cells, and as a result, change normal cells into an abnormal knot as well as structural abnormalities occur. The hazard of liver cirrhosis increased day by day. Recently liver cirrhosis prevalence of Pakistan is 13.5%. Ultrasonography with advancement can easily diagnose the chronic liver disease and detect and grade the fibrosis and osteatosis with complications.
Aim: To examine and the analysis of ultrasonographic diagnosis of chronic liver disease with grading of fibrosis and oseatosis.
Methods: Color Doppler ultrasound and contrast-enhanced ultrasound are the major methods in the assessment of chronic liver diseases.
Results: Color Doppler ultrasound can easily detect and grade the fibrosis in chronic liver diseases.
Conclusion: An outline of methods including color Doppler and contrast-enhanced ultrasound, are make available.
Keywords: Chronic Liver Disease, Hepatitis

INTRODUCTION

The diagnosis and management of chronic liver diseases and portal hypertension by usage of Ultrasound (US) is mainly detecting method.

Cirrhosis is actually a degenerative change that leads to scarring as cells in the liver become tainted because of incessant hepatitis B and C[4]. When Liver cells develop into extreme scar tissue; the liver loses its ability to employment appropriately[5]. Consistently, (around 31,000 individuals in the USA) pass on from cirrhosis, ceaseless hepatitis B and C[6]. The malady can't be turned around or restored aside from, now and again, through a liver transplant[7]. In any case, it can regularly be impeded or ended, particularly if the sickness is identified in the beginning periods[8]. Despite the fact that capacity can never be reestablished to the pieces of liver that have swung to scar tissue, can carry on with a sound existence with the rest of the segment if the illness is gotten in time. In any case, there is a point of no arrival with cirrhosis. As more cells are supplanted by scar tissue, less solid cells are left to deal with the liver's numerous errands[9]. This is the reason it's vital to recognize the hidden causes at the earliest opportunity and start finding a way to dispose of them. Hepatitis B or C infection intense contamination can prompt recuperation, intense liver disappointment, or perpetual disease. Chronicity of hepatitis B virus and hepatitis C virus disease relies upon the age, sex, and safe ability at the season of contamination[10]. In most immuno-skillful grown-ups, 5% to 10% create perpetual hepatitis B virus disease, while 75% to 85% create interminable hepatitis C virus contamination[10]. Ceaseless contamination may result in a 'solid bearer' state, liver cirrhosis and additionally hepatocellular carcinoma of person who creates intense liver disappointment 80 percent bite the dust within days and weeks after disease[11].

Ultrasonography with advancement can easily diagnose the chronic liver disease and detect and grade the fibrosis and osteatosis with complications. In chronic liver disease, there is hepatic fibrosis that leads to cirrhosis and end stage liver disease.

Hepatitis B and Hepatitis C are still major reason word wide. Obesity and high prevalence of metabolic syndrome causing high incidence of cirrhosis. Non alcoholic fatty liver disease (NAFLD) has increase incidence than earlier estimated[12]. Diabetes and obesity increasingly now a days and in the US , it will exceed 50 % in 2030[13.] . Non alcoholic steatohepatitis (NASH) is fatal condition that was discover in 1980, is a form of NAFLD that is becoming epidemic lead to cause of cirrhosis[14].

METHODOLOGY

This descriptive study will be conducted at Asim Ultrasound center Multan for a period of six months from August 2018 to January 2019. Color Doppler ultrasound of 100 patients of all age group with chronic liver disease ,hepatitis B and C virus liver cirrhosis were done. Scanner GE Logic 5 and 7 Pro, DP-20 used for this study to examine the collaboration of liver cirrhosis. The liver cirrhosis associated hepatitis B virus and hepatitis C virus were also analyzed on trans-abdominal by concave prob 2.5- 5MHz.

RESULTS

Color Doppler ultrasound can easily detect and grade the fibrosis in chronic liver disease as in following figures 1-12.

Fig.1

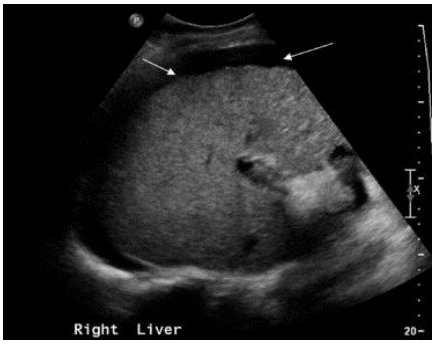


Fig. 2

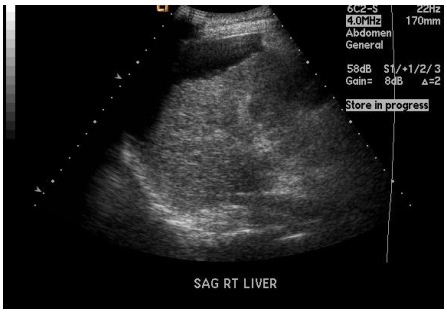


Fig. 3

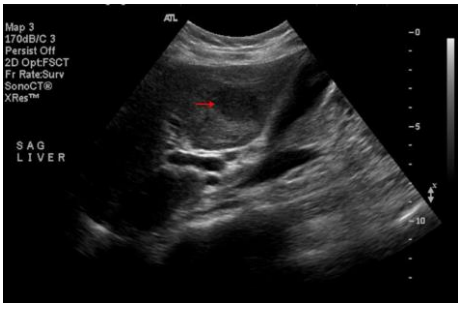


Fig. 4

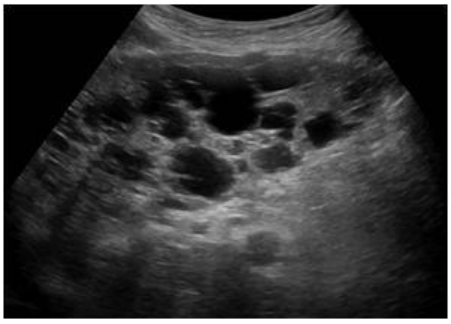


Fig. 5

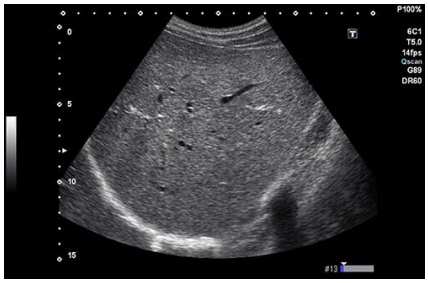


Fig. 6

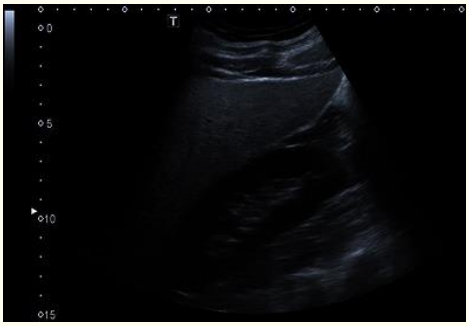


Fig.7

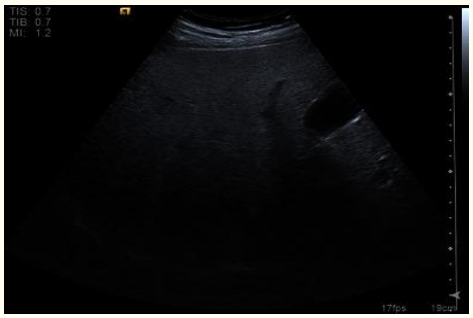


Fig.8

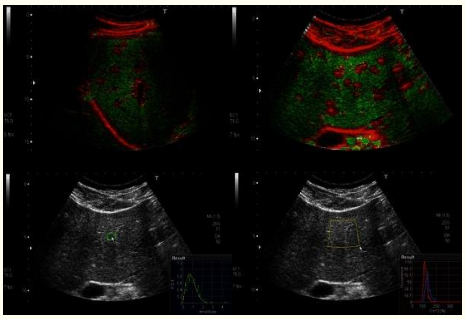


Fig.9

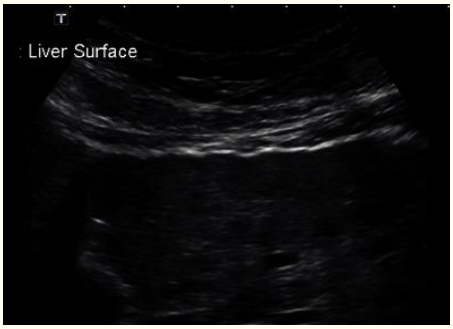


Fig.10

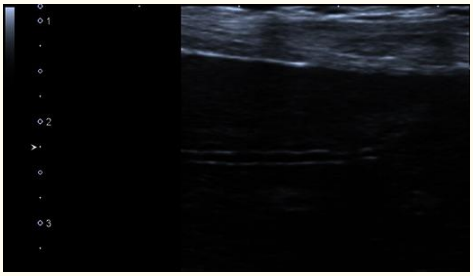


Fig.11

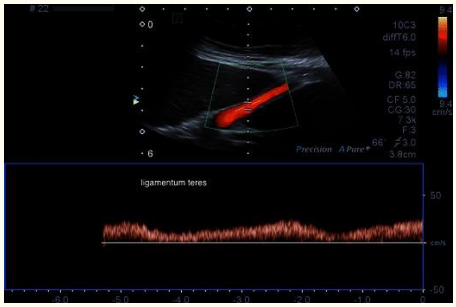
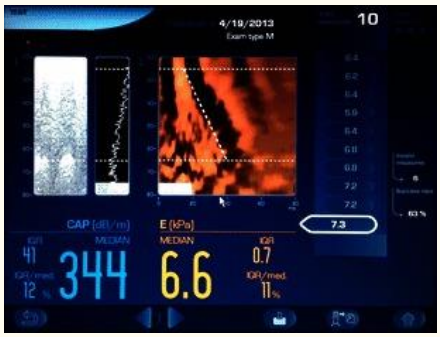


Fig. 12



DISCUSSION

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Hepatitis B and Hepatitis C are still major reason word wide. Obesity and high prevalence of metabolic syndrome causing high incidence of cirrhosis. Non alcoholic fatty liver disease. (NAFLD) has increase incidence than earlier estimated. Diabetes and obesity increasingly now a days and in the US , it will exceed 50 % in 2030 . Non alcoholic steatohepatitis (NASH) is fatal condition that was discover in 1980, is a form of NAFLD that is becoming epidemic lead to cause of cirrhosis.

CONCLUSION

An outline of methods including color Doppler and contrast-enhanced ultrasound, are make available.
Conventional B-mode ultrasound
Color Doppler ultrasound
A Contrast-enhanced ultrasound
An Elastography

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