

## Original Research

### To evaluate the clinicopathological association in chronic liver disease

<sup>1</sup>Arun Kumar, <sup>2</sup>Nidhi Sachdeva

<sup>1</sup>Assistant Professor, Department of General Medicine, K M Medical College & Hospital, Mathura, Uttar Pradesh, India

<sup>2</sup>Assistant Professor, Department of Pathology, K M Medical College & Hospital, Mathura, Uttar Pradesh, India

#### ABSTRACT:

**Aim:** To evaluate the clinicopathological association in chronic liver disease. **Materials and method:** The present study was a cross-sectional study that included analysis of clinicopathological data of 80 patients with clinically suspected chronic liver disease. A convenient sample of 80 was taken according to the total number of patients admitted to the medical wards. Adults above 15 years old with symptoms for more than 6 weeks duration with predisposing and precipitating factors, symptoms of liver disease of fewer than 6 weeks duration with significant history, and who were suspected with malignancies were included in this study. **Results:** The bulk of the cases (72) were identified within the age range of 30 to 69 years, with the highest concentration (24) occurring among those aged 50 to 59 years. The prevalent symptoms seen in this research were abdominal distension and loss of appetite, which were reported by 56 patients, accounting for 70% of the sample. Pain abdomen was the next most frequent symptom, reported by 44 patients (55%), followed by jaundice in 34 patients (42.5%), loss of weight in 32 patients (40%), pedal edoema in 22 patients (27.5%), fever in 20 patients (25%), oliguria in 16 patients (20%), and sleep problems in 8 patients (10%). The most prevalent clinical finding seen in the study was ascites, with a frequency of 52 cases (65%). This was followed by hepatomegaly, which was present in 48 cases (60%), icterus in 38 cases (47.5%), pedal edoema in 34 cases (42.5%), splenomegaly in 28 cases (35%), and engorged veins across the belly in 16 cases (20%). **Conclusion:** The prevalent manifestations seen in individuals suffering from chronic liver illness include abdominal distension and diminished appetite. The most often encountered clinical indications are ascites, hepatomegaly, abdominal discomfort, and jaundice. Histopathological testing is necessary to validate the clinical diagnosis of chronic liver disease.

**Keywords:** Clinicopathological, Chronic Liver Disease, Splenomegaly

Received: 17 October, 2020

Accepted: 22 November, 2020

**Corresponding author:** Nidhi Sachdeva, Assistant Professor, Department of Pathology, K M Medical College & Hospital, Mathura, Uttar Pradesh, India

**This article may be cited as:** Kumar A, Sachdeva N. To evaluate the clinicopathological association in chronic liver disease. J Adv Med Dent Sci Res 2020;8(12):270-273.

#### INTRODUCTION

Chronic liver disease is a pathological condition affecting the liver, characterised by a range of aetiologies and degrees of severity, and presenting with diverse clinical, biochemical, and histological manifestations. The severity of this condition persists for a duration of at least six months [1]. A significant proportion of individuals exhibit no symptoms, while in other cases, symptoms may manifest as moderate or sporadic. In some individuals, the manifestation of symptoms may not occur, leading to a delayed diagnosis until the illness advances to the stage of cirrhosis [2]. The prompt and accurate identification of chronic liver disorders is of utmost significance in the management of these conditions, as it directly

contributes to the reduction of morbidity and death rates. India also has a dearth of comprehensive data and registries for chronic liver disease [3,4]. Histopathological examination remains the primary diagnostic modality for reliably identifying and classifying different types of chronic liver disorders, even with the presence of improved imaging tools and serological investigations[5]. Our objective was to examine the correlation between clinical diagnosis and histological diagnosis in individuals with chronic liver disease.

#### MATERIALS AND METHODS

The present study was a cross-sectional study that included analysis of clinicopathological data of 80

patients with clinically suspected chronic liver disease. A convenient sample of 80 was taken according to the total number of patients admitted to the medical wards.

### INCLUSION CRITERIA

Adults above 15 years old with symptoms for more than 6 weeks duration with predisposing and precipitating factors, symptoms of liver disease of fewer than 6 weeks duration with significant history, and who were suspected with malignancies were included in this study.

### EXCLUSION CRITERIA

Patients below 15 years, with bleeding diathesis, acute fulminant liver failure, acute massive upper GI bleed, acute hepatitis, grossly anaemic patients, with tense ascites, hepatic encephalopathy, comatose, and patients with psychosis were excluded.

### METHODOLOGY

The history details were noted including the nature of the symptoms, duration, progression and detailed history, detailed clinical findings, which were recorded after meticulous examination, complete blood serum including complete liver function tests, and virology, ascitic fluid and radiological investigations and histopathological findings, and the details of other relevant investigations. And also, the details of the complications of the liver biopsy were noted.

### STATISTICAL ANALYSIS

Complete data were analysed. Statistical analysis was done using SPSS-16. Chi-square test was used to test the association of categorical data, standard error of proportions to compare proportions and kappa statistics to see the percent of agreement.

### RESULTS

The research consisted of a total of 80 patients (N = 80) who were thought to have chronic liver disease. Among these patients, 50 were identified as men, accounting for 62.5% of the sample, while the remaining 30 were females, making up 37.5% of the sample. The mean age of the patients was found to be 48.48 years, with a standard deviation of 11.03 years. The age range of the patients varied from 26 to 70 years. The bulk of the cases (72) were identified within the age range of 30 to 69 years, with the highest concentration (24) occurring among those aged 50 to 59 years. The prevalent symptoms seen in this research were abdominal distension and loss of appetite, which were reported by 56 patients, accounting for 70% of the sample. Pain abdomen was the next most frequent symptom, reported by 44 patients (55%), followed by jaundice in 34 patients (42.5%), loss of weight in 32 patients (40%), pedal edoema in 22 patients (27.5%), fever in 20 patients (25%), oliguria in 16 patients (20%), and sleep problems in 8 patients (10%). The most prevalent clinical finding seen in the study was ascites, with a frequency of 52 cases (65%). This was followed by hepatomegaly, which was present in 48 cases (60%), icterus in 38 cases (47.5%), pedal edoema in 34 cases (42.5%), splenomegaly in 28 cases (35%), and engorged veins across the belly in 16 cases (20%).

**Table 1: Initial complaints**

Initial complaints	No of cases (%)
Abdominal distension	56 (70%)
Loss of appetite	56 (70%)
Pain Abdomen	44 (55%)
Jaundice	34 (42.5%)
Loss of weight	32 (40%)
Swelling of feet	22 (27.5%)
Fever	20 (25%)
Decreased urine output	16 (20%)
Sleep disturbances	8 (10%)
Melena	6 (7.5%)
Pale colored stools	6 (7.5%)
Vomiting	4 (5%)
Hematemesis	4 (5%)
Pruritis	2 (2.5%)

**Table 2: Clinical Signs**

Clinical Sign	No of cases (%)
Ascites	52 (65%)
Hepatomegaly	48 (60%)
Icterus	38 (47.5)
Pedal oedema	34 (42.5%)
Splenomegaly	28 (35%)

Engorged veins over abdomen	16 (20%)
Scanty body hair	4 (5%)
White nails	4 (5%)
Scratch marks	4 (5%)
Clubbing	2 (2.5%)
Palmar Erythema	2 (2.5%)
Spider Naevi	2 (2.5%)

**Table 3: Clinical Diagnosis and Histopathology Confirmation**

Clinical diagnosis	No of Cases Suspected	Histological diagnosis Confirmed
	Cirrhosis	40
HCC	18	10
Chronic Hepatitis	12	6
Hepatoma	4	0
Secondaries	4	0
Chronic Liver Abscess	2	0
Total number of cases	80	44

**Table 4: Clinical Diagnosis-Histopathology Cross Tabulation Count**

		Histopathology				Total
		Cirrhosis	Non cirrhotic Liver disease	Other	Tumours	
Clinical Diagnosis	Cirrhosis	22	12	2	2	38
	Non cirrhotic Liver disease	8	8	2	0	18
	Others	2	0	2	2	6
	Tumours	2	2	4	10	18
	Total	34	22	10	14	80

## DISCUSSION

In this study of 80 patients with clinically diagnosed chronic liver disease, among which 34 (40.5 %) were cirrhotic, 22 (27.5 %) were chronic hepatitis, 10 (12.5 %) were hepatocellular carcinoma, and adenocarcinoma in 2 (2.5 %), fatty liver in 2 (2.5 %) and liver abscess in 2 (2.5 %) case, hepatoblastoma seen in a (2.5 %) 60-year-old female, which is the most common primary malignancy of liver in paediatric age and rare to occur in adults. In the present study (N = 80), alcoholic abuse was seen in 28 (35 %) patients of which 16 (61.5 %) had cirrhosis, 12 patients (42.85 %) had non-cirrhotic liver disease and two patient was diagnosed with HCC (7.1%). The age range of cirrhosis in the present study was 30 - 69 years[6]. The proportion of alcohol abuse was higher (35 %) in the present study population, in patients with cirrhosis 16 (61.5%) and patients with non-cirrhotic liver disease (42.85 %), contrary to patients in Abbasi, A et al. study[7,8]. A study by Abbasi, A et al. highlighted evolving risk factors for CLD as alcoholism and diabetes in India, like in other studies. Alcohol was the most common cause of cirrhosis in this study, similar to our present study (2003 - 2005)[9]. Comparison with trends of chronic liver disease in Gautam Ray et al study is shown. Increasing trends of alcohol-related disease from 2003-2011, and cryptogenic liver disease was also similar to this study from the year 2003 – 2007[10].

## CONCLUSION

The prevalent manifestations seen in individuals suffering from chronic liver illness include abdominal distension and diminished appetite. The most often encountered clinical indications are ascites, hepatomegaly, abdominal discomfort, and jaundice. Histopathological testing is necessary to validate the clinical diagnosis of chronic liver disease. In appropriate clinical settings, the clinical diagnosis of chronic liver disease made by experts is fairly associated with histopathological diagnosis. Liver biopsy is a safe procedure that aids in establishing the diagnosis and helps in the appropriate management of a chronic liver disease.

## REFERENCES

1. Brown RM. Pathology of neonatal liver biopsy. *Curr Diagn Pathol.* 2006;12:202–9.
2. Sabir OM. Pathologic causes of liver disease in Sudanese children: Results of 450 liver needle biopsies at a single children hospital. *Sudan J Paediatr.* 2011;11(1):38
3. Ahmad M, Afzal S, Roshan E, Mubarak A, Bano S, Khan SA. Useful ness of needle biopsy in the diagnosis of pediatric liver disorders. *J Pak Med Assoc.* 2005;55:24–8.
4. Dhole SD, Kher AS, Ghildiyal RG, Tambse MP. Chronic liver diseases in children: clinical profile and histology. *J ClinDiagn Res.* 2015;9(7):4.
5. Hanif M, Raza J, Qureshi H, Issani Z. Etiology of chronic liver disease in children. *J Pak Med Assoc.* 2004;54:119–22.

6. Sanyal, A. J., Yoon, S. K., & Lencioni, R. The etiology of hepatocellular carcinoma and consequences for treatment. *The oncologist*.2010: 15(S4), 14-22.
7. Onyiriuka AN, Adeniran KA, Onyiriuka EPA. Prevalence of Hypoglycemia Among Patients Presenting with Cholestasis of Infancy in a Nigerian Teaching Hospital. *Oman Med J*. 2012;27:329–32.
8. Rajeshwari K, Gogia S. The clinical spectrum of chronic liver disease in children presenting to a tertiary level teaching hospital in New Delhi. *Tropical Doctor*. 2008;38:101–2.
9. Shibata Y, Kitajima N, Kawada J, Sugaya N, Nishikawa K, Morishima T, et al. Association of Cytomegalovirus with InfantileHepatitis. *Microbiol Immunol*. 2005;49:771–7.
10. Abbasi, A., Butt, N., Bhutto, A. R., Gulzar, K., & Munir, S. M. Hepatocellular carcinoma: a clinicopathological study. *J Coll Physicians Surg Pak*.2010: 20(8), 510-3