

COMPLICATIONS AND COMORBIDITIES ASSOCIATED WITH ALCOHOLIC LIVER CIRRHOSIS

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ABSTRACT

Background: Numerous etiological agents cause liver cirrhosis, and in our region alcohol is the most common etiological agent. Liver cirrhosis in the stage of decompensation is accompanied by a large number of complications. The aim of this study was to examine how often complications and comorbidities were present in alcoholic liver cirrhosis in patients hospitably treated in our health institution. **Material and methods:** We used the datas from discharge letters for hospitalized patients with decompensated alcoholic liver cirrhosis, both sexes, treated in the last 3 years. **Results:** 151 patients participated in the study, with a predominance of males (82.10%), with an average age of 58.63 years. The most common complications were ascites and varices of the esophagus with a share of 74.17% and 59.60%,

respectively. The most common comorbidities were congestive heart failure (14.57%) and diabetes without chronic complications (13.91%). 38 patients died within 3 years of the observed period, which is 25.16%. **Conclusion:** Our research speaks in favor of the high prevalence of comorbidities and complications of alcoholic liver cirrhosis, as well as high mortality rates as a consequence of its complications.

KEYWORDS: alcoholic liver cirrhosis, comorbidities, complications.

INTRODUCTION

Generally, liver cirrhosis is a common disease caused by a number of etiological agents.^[1-3] In the Balkans, given the habits of the population, the most common etiological agent is long-term alcohol consumption, which inevitably empties the liver damage and progresses to liver cirrhosis.^[4-6] Alcohol leads to four basic types of liver damage:(1) fatty liver of alcoholics, ie. steatosis,(2) alcoholic steatohepatitis, (3.) alcoholic cirrhosis, and (4.) hepatocellular carcinoma. These forms can rarely be found in isolation in a single patient, but at the same time the signs of all three (four) types of liver lesions are present to varying degrees.^[7-9] If supportive measures or liver transplants are not applied, cirrhosis of the liver usually ends fatally.^[10]

The aim of this study was to observed the most frequent complications and comorbidities associated with alcoholic liver cirrhosis patients treated in our health institution.

MATERIAL AND METHODS

In this paper, discharge letters and datas from clinical information system of hospitalized patients because of alcoholic liver cirrhosis were analyzed. Patients have been hospitalized at the University Clinical Center of the Republic of Srpska, Department of Gastroenterology and hepatology, for the last 3 years. All necessary data were analyzed retrospectively.

RESULTS

The research included 151 pationts hospitalized from January 1, 2018 to January 1, 2021. More male patients (82.10%) than female patients (17.90%) were noted. The mean age of patients was 58.63 ± 10.51 years.

The most common complications of alcoholic liver cirrhosis were ascites and varices of the esophagus, with a share of 74.17% and 59.60%, respectively. Hepatic encephalopathy and pleural effusion were present in 36.49% of patients, while hepatorenal syndrome was present in 12.58% of patients. (**Table 1**)

Table 1: Alcoholic liver cirrhosis patients characteristics and complications.

Carracteristics	Count (N)	Percent (%)
Number of patients	151	100,00
Mean age	58.63 ± 10.51	
Gender		
Male	124	82,10
Female	27	17,90
Complications		
	No Count (N) Percent (%)	Yes Count (N) Percent (%)
Hepatic encephalopathy	111 (73.50%)	40 (26.49%)
Esophageal varices	61 (40.40%)	90 (59.60%)
Pulmonary effusion	111 (73.50%)	40 (26.49%)
Ascites	39 (25.82%)	112 (74.17%)
Hepatorenal syndrome	132 (87.41%)	19 (12.58%)

Table 2 presents the most common comorbidities experienced by hospitalized patients and we noted that the most frequent were congestive heart failure (14.57%) and diabetes without chronic complications (13.91%). Kidney disease was noted in 15 patients, and 14 of them had malignant disease without metastases, while 2 patients had metastatic disease. Seven patients had cerebrovascular disease, peptic ulcer disease, and diabetes with chronic complications such as comorbidity. One person had a heart attack during hospitalization. As many as 38 out of 151 patients died in the observed period of 3 years, which represents as much as 25.16%.

Table 2: Alcoholic liver cirrhosis comorbidities.

Comorbidities	Count (N)	Percent (%)
Myocardial infarction	1	0.66%
Congestive heart failure	22	14.57%
Peripheral vascular disease	4	2.65%
Cerebrovascular disease	7	4.64%
Chronic pulmonary disease	6	3.97%
Reumatic disease	1	0.66%
Peptic ulcer disease	7	4.64%
Diabetes without chronic complication	21	13.91%
Diabetes with chronic complication	7	4.64%
Renal disease	15	9.94%
Any malignancy without metastasis	14	9.27%

Moderate or severe liver disease	151	100%
Metastatic solid tumor	2	1.32%
Exitus lethalis	38	25.16%

DISCUSSION

The most common etiological agent that leads to liver cirrhosis in the Balkans region is long-term alcohol consumption.^[4-6] It is about the dominance of the male over the female, people who are living in rural areas, with lower levels of education and lower socio-economic status are more often affected.^[11, 12] In our study, we observed and analyzed the medical records of hospitalized patients with decompensated alcoholic liver cirrhosis treated in the last three years. A sample of 151 patients was observed, of which 124 were men (82.10%), while there were 27 female patients (17.90%). The average age of the patients was 58.63 ± 10.51 . The obtained results correlate with the data of other researchers.^[6, 13-16]

Regarding the complication of alcoholic liver cirrhosis in the stage of decompensation, we observed: cephalic encephalopathy, esophageal varicosities, pulmonary effusion, ascites and hepatorenal syndrome. The most common complication was ascites present in 112 patients, accounting for 74.17%, followed by esophageal varicosities present in 90 patients and 59.60%, respectively. Hepatic encephalopathy and pulmonary effusion were present in 40 patients, accounting for 26.49%. Hepatorenal syndrome was present in 19 patients, or 12.58%.

Sivanathan et al. obtained similar results by analyzing the frequency of complications in alcoholic liver cirrhosis.^[17]

Generally, liver cirrhosis is usually accompanied by a number of comorbidities. In our study, we observed that the most common comorbidities were congestive heart failure present in 14.57% of patients, followed by diabetes without chronic complications with a share of 13.91%. Kidney disease as comorbidity had 9.94%, or 15 patients, malignant disease without metastases 9.27%. Cerebrovascular diseases, peptic ulcer disease and diabetes with chronic complications were present in 7 patients and 4.64%, respectively. Two patients had metastatic malignancy, while one patient had rheumatic disease as comorbidity. During hospitalization, one patient was diagnosed with a myocardial infarction. A similar overview of comorbidities was given by Jepsen^[18] in his 2004 paper Grissa et al.^[19] In as many as 38 of 151 patients, the disease ended in death, representing 25.16%.

CONCLUSION

Having in mind the results of the observations obtained above, we can conclude that alcoholic liver cirrhosis is a very serious disease that is more common in older men. The disease is accompanied by a high rate of complications and death, as well as numerous comorbidities that worsen the clinical presentation and outcome. Therefore, special emphasis should be placed on promotional and preventive measures.

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Conflict of interest

None.

1

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