

Diagnostic and Management of Chronic Liver Disease: A Case Report and Review of Literature

I Gst Ag Bgs Arya Wiradarma¹, A.A. Gede Oka Suta Wicaksana², Made Wirama Diyana³

^{1,2}Intern of Internal Medicine Department in Wangaya Regional General Hospital, Denpasar, Bali, Indonesia

³Internist of Internal Medicine Department in Wangaya Regional General Hospital, Denpasar, Bali, Indonesia

Abstract: *Chronic Liver Disease (CLD) is a clinical condition that when the liver has progressive damage for at least 6 months. The damage occurs in the liver including the process of inflammation, destruction, and thus regeneration cause fibrosis, cirrhosis, to malignancy. Based on the Global Burden of Liver Disease from the WHO Global project Burden of Disease (GBD) in 2018, the prevalence of liver cirrhosis based on results Autopsy studies range from 4.5-9.5% of the general population in the world by etiology most commonly include alcohol abuse, nonalcoholic steatohepatitis (NASH), and viral hepatitis. In this paper we present a case report where we will discuss the diagnostic and the main treatment for chronic liver disease.*

Keywords: Chronic liver disease, diagnostic and main treatment

1. Introduction

Chronic Liver Disease (CLD) is a clinical condition that when the liver has progressive damage for at least 6 months. The damage occurs in the liver including the process of inflammation, destruction, and thus regeneration cause fibrosis, cirrhosis, to malignancy. Based on the Global Burden of Liver Disease from the WHO Global project Burden of Disease (GBD) in 2018, the prevalence of liver cirrhosis based on results Autopsy studies range from 4.5-9.5% of the general population in the world by etiology most commonly include alcohol abuse, nonalcoholic steatohepatitis (NASH), and viral hepatitis. Mortality due to cirrhosis of the liver was estimated reached 771,000 people. CLD caused by chronic viral hepatitis occurs highest in eastern countries, such as India, Japan, and Indonesia. Viral hepatitis frequently associated with CLD and deaths are hepatitis B and C.^{1,2}

There were some risk factors for chronic liver disease. Viral hepatitis and excessive alcohol intake are the leading risk factors worldwide. Both hepatitis B and C are the most common causes of chronic hepatitis in the world. Alcohol consumption and liver disease correlates with the amount of alcohol consumed over a lifetime. Broadly speaking, the patient can be said abuse alcohol when consuming alcoholic drinks > 3 glasses a day for men, > 2 glasses a day for women, or binge drinking (> 5 glasses for men or > 4 glasses for women within 2 hours). Diabetes mellitus and obesity also increase the risk of CLD.^{3,4,5}

There are some modalities that can be used for screening CLD include USG, CT Scan, Esophagogastroduodenoscopy to find varices, esophagus, liver biochemistry test such as SGOT, SGPT, Albumin, Globulin.^{6,7}

2. Case Report

A 45 year old man came to the Emergency Room (ER) at Wangaya Hospital complaining weakness, stomach always feel full 3 days before admitted to hospital, the patient's

fecal are black and the patients urine was like the color of tea. The patient said that he got diagnosed with Chronic Liver Disease from one year ago.

On Admission, the patient was conscious with normal vital signs (Blood Pressure 120/80, Heart Rate 86 bpm, Respiratory Rates 20x/minutes, Axillar Temperature 36.7°C). On physical examination there are no anemic or icteric on both eyes, distension and ascites on the abdomen regio, no oedema on both legs.



Laboratory results showed normocytic normochromic anemia (haemoglobin 12.0 g/dl, mean corpuscular volume 93.5 fl, mean corpuscular haemoglobin 32.5 pg) SGOT 60 U/L, SGPT 56 U/L, HBsAG (+), Anti HCV (-). Albumin count 3.1 g/dL, Natrium 134 mmol/L, Calcium 3.9 mmol/L, Chloride 92 mmol/L.

The ultrasound scan showed there is an image fit for chronic liver disease and ascites on abdomen (Echoparenchymheterogeny, obtuse angle, irregular side of liver). There is no hepatomegaly sign on the ultrasound scan. The patient was treated with NaCl 0.9% : D5% : AminoFusinHepar = 1:1:1 8 drops per minute, Letonal 2x100mg, Curcuma 3x1, Omeprazole 1x40mg injection,

Antasida 3xCl, Sucralfat 3xCl, Ceftriaxone 2x1gr injection, Lactulosa 3xCl if needed, Furosemide 3x1 injection, Tranexamat Acid 3x500mg injection.

3. Discussion

Based on the Global Burden of Liver Disease from the WHO Global project Burden of Disease (GBD) in 2018, the prevalence of liver cirrhosis based on results Autopsy studies range from 4.5-9.5% of the general population in the world by etiology most commonly include alcohol abuse, nonalcoholic steatohepatitis (NASH), and viral hepatitis.^{1,2}

Our patient is male 45 years old, Indonesian with history for this patient was an active alcohol user when he was young which can increase the chance to develop chronic liver disease. The amount of alcohol the patient consumed when he was young almost every week with his friends. Those lifestyle lead our concern as the main risk factor for this patient liver damage. The patient when tested for HBsAG was positive which can increase the chance to develop chronic liver disease.

Early diagnosis is the key to prevent further complications on chronic liver disease. In order to make sure our diagnosis we checked the patient's blood, from there we got the results that the both SGOT and SGPT were increased (SGOT was higher than SGPT). The HBsAG also positive which indicate that there were infection on the patient's liver that can help the progress of the chronic liver disease besides the alcohol. From the ultrasound scan there was an image that can confirm chronic liver disease (Echoparenchymheterogeny, obtuse angle, irregular side of liver).

The main goals in the management of chronic liver disease are to stopping the progression of the disease and the management of complications which arise. The principle in handling is to improve the disease baseline.⁸

4. Conclusion

Excessive alcohol intake and the history of hepatitis B chronic can lead to development of chronic liver disease. Awareness of disease is needed to prevent further complications such as HCC. The main treatment for chronic liver disease is to stopping the progression of the disease and improve the patient's quality of life.

5. Author Contribution

All authors contributed equally.

6. Conflict of interest

There is no conflict of interest in this case report.

7. Acknowledgement

The authors acknowledge and thankful for the patient & family, doctors, nurses, and our hospital superintendent.

References

- [1] Sharma A, Nagalli S. Chronic Liver Disease: A Review. National Library of Medicine. 2020;1-10.
- [2] Asrani SK, Devarbhavi H, Eaton J, Kamath PS. Burden of liver diseases in the world. *J Hepatol*. 2019;70(1):151-71.
- [3] Bajaj JS. Alcohol, liver disease and the gut microbiota. *Nat Rev Gastroenterol Hepatol*. 2019.
- [4] Friedman SL, Neuschwander-tetri BA, Rinella M, Sanyal AJ. Mechanisms of NAFLD development and therapeutic strategies. *Nat Med*. 2018;24.
- [5] McMahon BJ. The Natural History of Chronic Hepatitis B Virus Infection. *Hepatology*. 2010;45-55.
- [6] Balogh J, Victor D, Li X, Ghobrial RM. Hepatocellular carcinoma : a review. *J Hepatocell Carcinoma*. 2016;3:41-53.
- [7] Rahimi RS, Rockey DC. Complications and outcomes in chronic liver disease. 2011.
- [8] Sharma A NS. Chronic Liver Disease [Internet]. 2020. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK554597/%0A>