

PHB



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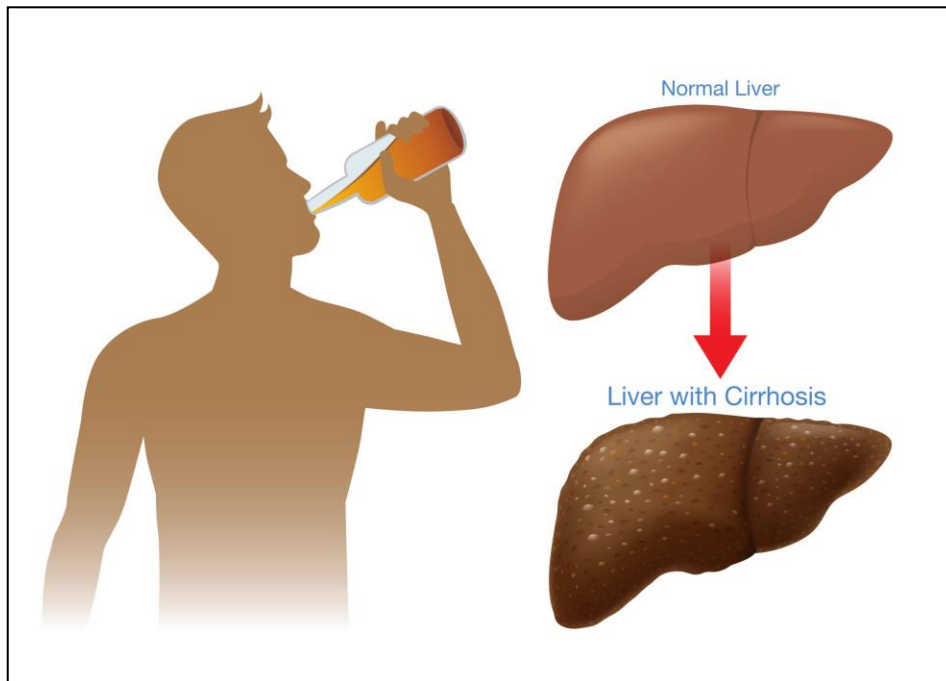
Chapter– 6 Gastro-Intestinal Disorders

Topic: ALCOHOLIC LIVER DISEASE

6.1

Introduction

Alcoholic Liver Disease (ALD) refers to a spectrum of liver damage caused by excessive and prolonged consumption of alcohol.



6.2

Etiopathogenesis

The exact mechanisms of ALD are complex and multifactorial. However, the main factors involved are:

- 1. Oxidative stress:** Alcohol metabolism leads to the production of reactive oxygen species (ROS), which damage liver cells.
- 2. Inflammation:** Alcohol-induced inflammation leads to the activation of immune cells, which release pro-inflammatory cytokines, causing liver damage.
- 3. Fibrogenesis:** Repeated liver injury leads to the activation of stellate cells, which produce

collagen, leading to fibrosis and cirrhosis.

6.3**Types**

ALD can be classified into three main types:

- 1. Fatty Liver:** Characterized by the accumulation of fat in liver cells.
- 2. Alcoholic Hepatitis:** Characterized by inflammation and damage to liver cells.
- 3. Cirrhosis:** Characterized by extensive scarring and fibrosis of the liver.

6.4**Symptoms**

The symptoms commonly includes:

- 1. Fatigue:** Feeling tired and weak.
- 2. Loss of Appetite:** Decreased interest in food.
- 3. Nausea and Vomiting:** Feeling queasy and vomiting.
- 4. Abdominal Pain:** Pain in the upper right abdomen.
- 5. Jaundice:** Yellowing of the skin and eyes.
- 6. Dark Urine:** Urine that is dark yellow or brown.
- 7. Pale Stools:** Stools that are pale or clay-colored.

6.5**Diagnosis**

Diagnostic procedures may include:

- 1. Physical Exam:** A doctor will perform a physical exam to check for signs of liver damage.
- 2. Blood Tests:** Blood tests will be done to check for liver enzymes and other markers of liver damage.
- 3. Imaging Tests:** Imaging tests such as ultrasound, CT, or MRI may be done to check for liver damage.
- 4. Liver Biopsy:** A liver biopsy may be done to check for liver damage and scarring.

6.6**Pharmacological managements**

Medications:

- 1. Corticosteroids:** Used to reduce inflammation and scarring.
- 2. Pentoxifylline:** Used to reduce inflammation and scarring.
- 3. Colchicine:** Used to reduce inflammation and scarring.

4. Vitamin E: Used to reduce oxidative stress.

6.7

Non - Pharmacological managements

1. Abstinence from Alcohol: The most important treatment for ALD is to stop drinking alcohol.

2. Nutritional Support: Patients may require nutritional support to ensure they are getting enough calories and nutrients.

3. Lifestyle Modifications: Patients may need to make lifestyle modifications, such as losing weight, exercising regularly, and eating a healthy diet.

4. Liver Transplant: In severe cases of ALD, a liver transplant may be necessary.

6.8

Complications

Complications of ALD may include:

1. **Liver Failure:** ALD can lead to liver failure, which can be life-threatening.
2. **Cirrhosis:** ALD can lead to cirrhosis, which can increase the risk of liver cancer.
3. **Liver Cancer:** ALD can increase the risk of liver cancer.
4. **Hepatic Encephalopathy:** ALD can lead to hepatic encephalopathy, a condition characterized by confusion, disorientation, and coma.

Practice Questions

MULTIPLE CHOICE QUESTIONS

1. Alcoholic liver disease (ALD) is primarily caused by:
 - A) Hepatitis A virus
 - B) Chronic alcohol consumption
 - C) Autoimmune factors
 - D) Non-alcoholic fatty liver disease
2. Which of the following enzymes is commonly elevated in ALD?
 - A) Serum amylase
 - B) Serum lipase
 - C) Alanine aminotransferase (ALT)
 - D) Creatine kinase (CK)
3. The initial stage of ALD is often characterized by:
 - A) Hepatic encephalopathy
 - B) Cirrhosis
 - C) Alcoholic hepatitis
 - D) Fatty liver (steatosis)
4. A common symptom of advanced ALD is:
 - A) Jaundice
 - B) Hypoglycemia
 - C) Hyponatremia
 - D) Hyperkalemia
5. The gold standard diagnostic test for ALD is:
 - A) Liver biopsy
 - B) Ultrasound imaging
 - C) Serum gamma-glutamyl transferase (GGT) level
 - D) Abdominal computed tomography (CT) scan
6. Treatment strategies for ALD may include:
 - A) Liver transplantation

- B) Vitamin K supplementation
 - C) Anticoagulant therapy
 - D) Inhaled corticosteroids
7. Alcoholic hepatitis is characterized by:
- A) Inflammation and necrosis of liver cells
 - B) Formation of liver cysts
 - C) Liver cirrhosis
 - D) Gallstone formation
8. Which of the following medications is NOT recommended for the treatment of alcohol dependence in patients with ALD?
- A) Naltrexone
 - B) Disulfiram
 - C) Acamprosate
 - D) Diazepam
9. Complications of ALD may include:
- A) Osteoporosis
 - B) Type 2 diabetes mellitus
 - C) Portal hypertension
 - D) Chronic obstructive pulmonary disease (COPD)
10. The best way to prevent ALD is to:
- A) Limit alcohol consumption to moderate levels
 - B) Avoid all alcoholic beverages
 - C) Consume only beer and wine, avoiding spirits
 - D) Drink alcohol only on weekends

FILL IN THE BLANKS

1. Alcoholic Liver Disease is caused by.....consumption of alcohol. (**Excessive**)
2. The first stage of ALD is usually.....liver, where fat accumulates in liver cells. (**Fatty**)
3. Prolonged ALD can lead to.....a severe scarring of the liver. (**Cirrhosis**)
4. Symptoms of ALD can include..... abdominal pain, jaundice, and swelling of the abdomen. (**Fatigue**)
5.is a diagnostic test for ALD that measures liver function and damage. (**Liver function tests**)

SHORT ANSWER TYPE QUESTIONS

1. Define alcoholic liver disease (ALD).
2. What are the three main stages of ALD?
3. How does chronic alcohol consumption contribute to the development of ALD?
4. What are the typical symptoms of alcoholic hepatitis?
5. What complications can arise in the ALD?

LONG ANSWER TYPE QUESTIONS

1. Write the mechanisms by which alcohol consumption leads to liver damage.
2. Describe the clinical manifestations of each stage of ALD, including fatty liver.
3. Discuss the diagnostic approach to ALD, including laboratory tests, imaging studies, and liver biopsy.
4. Write the pharmacological management for ALD.
5. Explore the long-term prognosis of ALD and factors influencing disease progression.

MCQ Answer

1.	B	3.	D	5.	A	7.	A	9.	C
2.	C	4.	A	6.	A	8.	D	10.	A