

Alcoholic Liver Disease (ALD) - Study Notes

Definition: Alcoholic Liver Disease (ALD) is a spectrum of liver disorders caused by chronic and excessive alcohol consumption, leading to fatty liver (steatosis), alcoholic hepatitis, and cirrhosis.

Etiopathogenesis:

- Chronic alcohol intake → Hepatic metabolism of ethanol → Production of acetaldehyde and reactive oxygen species (ROS).
- These toxic metabolites cause hepatocellular injury, inflammation, and fibrosis.
- Risk factors: Quantity & duration of alcohol intake, genetic predisposition, nutritional deficiencies, female gender, obesity, viral hepatitis co-infection.

Clinical Manifestations:

- Asymptomatic in early stages (Fatty liver).
- Symptoms: Fatigue, anorexia, nausea, weight loss.
- Signs: Hepatomegaly, jaundice, ascites, spider angiomas, palmar erythema.
- Complications: Portal hypertension, hepatic encephalopathy, variceal bleeding, liver failure.

Management:

Non-pharmacological:

- Absolute alcohol abstinence (cornerstone).
- Nutritional support (high-protein diet, vitamins esp. B-complex, folate, thiamine).
- Lifestyle modification, psychosocial support, counseling, de-addiction therapy.

Pharmacological:

- Corticosteroids (e.g., prednisolone) in severe alcoholic hepatitis.
- Pentoxifylline (alternative if steroids contraindicated).
- Antioxidants (N-acetylcysteine, S-adenosylmethionine – limited benefit).
- Management of complications: Diuretics for ascites, lactulose for encephalopathy.
- Liver transplantation in end-stage disease.

Flowchart: Pathophysiology of Alcoholic Liver Disease

