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Title: "EXPLORING THE EFFICACY OF DARUHARIDRA TAILA IN MANAGING KIKKISA WITH FOCUS ON STRAIE GRAVIDARUM: A CASE STUDY"

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PROSPECTIVE OBSERVATIONAL STUDY ON COMORBID CONDITIONS AND TREATMENT MODALITIES IN CHRONIC LIVER DISEASE AND CHOLELITHIASIS

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Abstract:

Aim: This study aimed to assess the comorbidities and treatment options for patients with chronic liver disease and cholelithiasis.

Objectives: A prospective observational study was conducted to evaluate comorbid conditions and treatment options in chronic liver disease and cholelithiasis patients. The objectives included identifying optimal medical and surgical treatments for these conditions, analyzing drug usage patterns based on age, gender, and drug class, evaluating complications, and assessing commonly performed surgical procedures.

Methods: A total of 220 cases were included in the study, with 100 cases each of chronic liver disease and cholelithiasis. The study was conducted at "KIMS Sunshine Hospital", Secunderabad over a period of 6 months. Data analysis was performed based on collected patient data.

Results: Out of the 200 patients studied, cholelithiasis was more prevalent among females, whereas chronic liver disease predominated among males. Common comorbidities observed included diabetes mellitus, hypertension, and jaundice. For cholelithiasis patients, major surgeries included ERCP and CBD stenting, with UDILIV prescribed as a gallstone dissolving agent. In chronic liver disease, hepatoprotective drugs and monoamine oxidase inhibitors were commonly used, with liver transplantation preferred in severe cases.

Discussion: The findings underscored the prevalence of diabetes mellitus, hypertension, and jaundice as significant comorbidities. Medications such as UDILIV, hepatoprotective drugs, and monoamine oxidase inhibitors were frequently prescribed. Surgical interventions such as ERCP, CBD stenting, laparoscopic cholecystectomy, and liver transplantation were crucial for managing severe cases of cholelithiasis and chronic liver disease.

Conclusion: Cholelithiasis showed a higher incidence in females, possibly linked to hormonal replacement therapy. Chronic liver disease presented with various complications including portal hypertension, ascites, esophageal varices, hepatocellular carcinoma, and hepatomegaly. The study highlighted the importance of tailored treatment approaches and suggested a need for enhanced prescription patterns in chronic liver disease management.

KEYWORDS: Chronic Liver Disease, Cholelithiasis, ERCP, Udiliv, Hepatoprotective Drugs, Liver Cirrhosis, Jaundice, Portal Hypertension Diabetes, Hepatitis.

INTRODUCTION

Chronic Liver Disease: Chronic liver disease refers to a progressive impairment of liver functions lasting over six months. This includes synthesis of clotting factors, various proteins, detoxification of metabolic by-products, and bile excretion. [1]

Complications of Chronic Liver Disease:

Hypertension: Portal hypertension is a significant and common complication. It occurs due to increased pressure in the portal vein, resulting from liver cirrhosis. As blood flow through the liver becomes obstructed, veins in areas such as the throat, stomach, or intestines can dilate or rupture, potentially leading to severe internal bleeding. [1]

- **Edema:** Swelling (edema) in the legs and lower feet.
- **Ascites:** Accumulation of fluid in the abdominal cavity.
- **Splenic enlargement (Splenomegaly):** Enlargement or swelling of the spleen.
- **Hepatopulmonary Syndrome:** This involves the formation and enlargement of blood vessels in the lungs, leading to reduced oxygen levels in the blood and body, often causing shortness of breath.
- **Hepatorenal Syndrome:** Kidney function failure due to portal hypertension as a complication of cirrhosis, resembling kidney failure.
- **Hepatic Encephalopathy:** Confusion, difficulty thinking, behavioral changes, and even unconsciousness occur when toxins from the intestines, normally detoxified by the liver, accumulate in the bloodstream and affect the brain.
- **Hypersplenism:** An overactive spleen that rapidly and prematurely destroys blood cells.
- **Malnutrition:** A healthy liver processes nutrients efficiently. However, a damaged liver finds this process challenging, leading to overall weakness and weight loss.
- **Infections:** Cirrhosis increases the risk of severe infections, such as bacterial peritonitis.
- **Liver Cancer:** Most individuals who develop liver cancer have cirrhosis.
- **Liver Failure:** Various diseases and conditions, including cirrhosis, can lead to liver failure. Liver failure occurs when the liver is unable to perform its numerous functions effectively.
- **Budd-Chiari Syndrome:** A condition where the hepatic veins are blocked or narrowed by a clot. This blockage causes blood to back up into the liver, leading to liver enlargement.

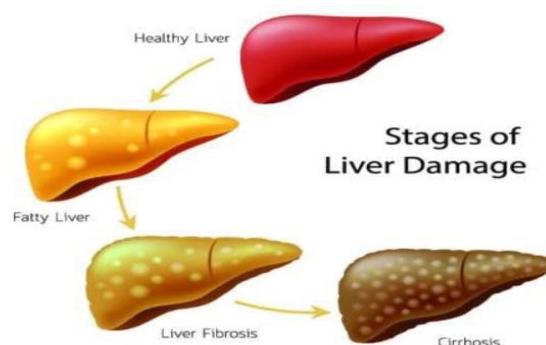


Figure 1: Stages of Liver Damage

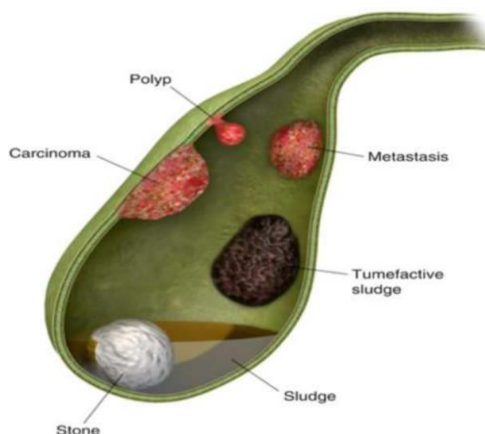


Figure 2: Formation of Stone

Endoscopic Retrograde Cholangiopancreatography (ERCP): Endoscopic retrograde cholangiopancreatography is a procedure used to diagnose and treat conditions such as gallstones, inflamed gallbladder, bile duct obstructions, pancreatitis, pancreatic cancer, and other related conditions.

Laparoscopic Cholecystectomy: During a laparoscopic cholecystectomy, the surgeon makes several small incisions in the abdomen and inserts a laparoscope—a thin tube with a tiny camera attached. The camera sends a magnified image from inside the body to a video screen, allowing the surgeon a close-up view of organs and tissues. Using instruments guided by the screen, the surgeon carefully separates the gallbladder from the liver, bile ducts, and surrounding structures. Subsequently, the surgeon removes the gallbladder through one of the small incisions. Patients typically receive general anesthesia during this procedure.

Open Cholecystectomy: An open cholecystectomy is performed when the gallbladder is significantly inflamed, infected, or scarred from previous surgeries.

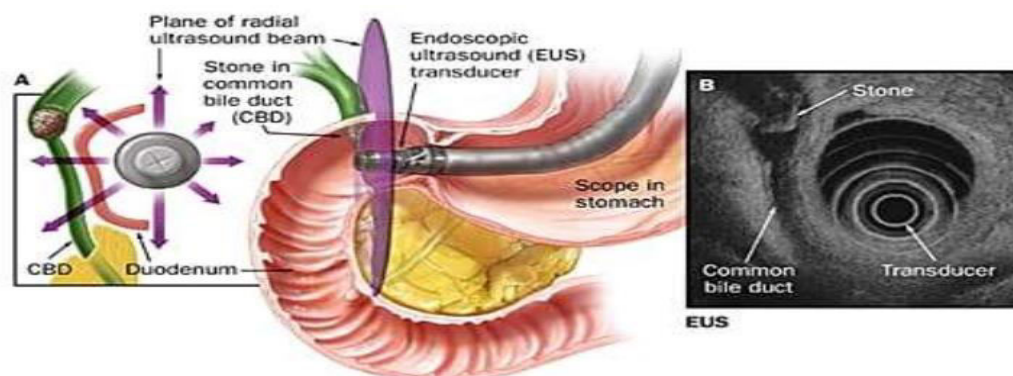
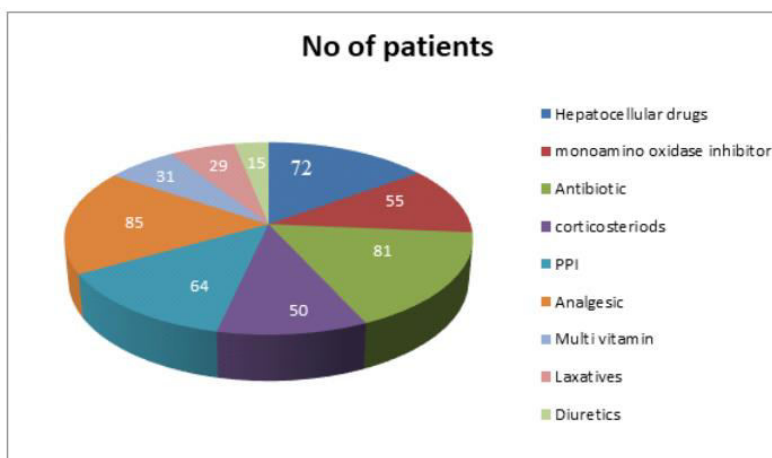
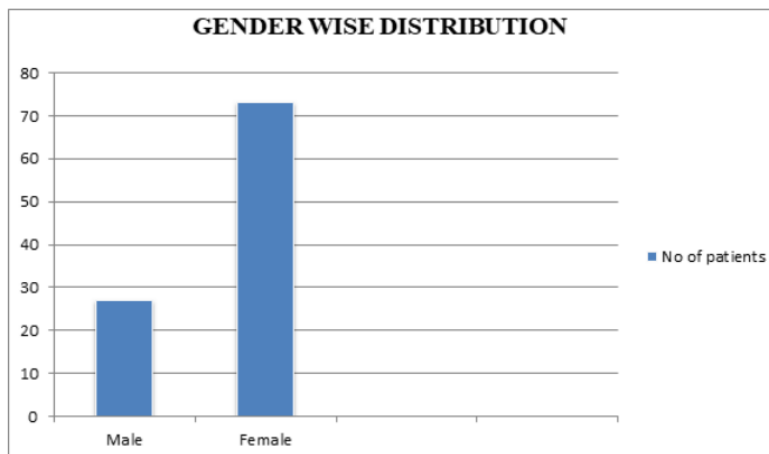


Figure 3: Endoscopic Retrograde Cholangiopancreatography

RESULTS

GENDER WISE DISTRIBUTION OF CHOLELITHIASIS DISEASE

Gender	No. Of Patients(n)	Percentage (%)
Male	27	27%
Female	73	73%
Total	100	100%



DISCUSSION

In this study, we analyzed data from 200 patients, comprising 100 with cholelithiasis and 100 with chronic liver disease.

Cholelithiasis:

- The majority of cholelithiasis patients were over 18 years old, including both males and females.
- Gender distribution indicated a higher prevalence among females (73%) compared to males (27%).
- The age distribution of gallstone occurrence was highest in the 31-40 years age group (28%), followed by 51-60 years (26%), 61-70 years (16%), 71-80 years (15%), 41-50 years (12%), 21-30 years (2%), and 81-90 years (1%).
- Common comorbidities associated with cholelithiasis included Diabetes Mellitus (DM), Hypertension (HTN), Thyroid disorders, Jaundice, sepsis, and Coronary Artery Disease (CAD). Diabetes Mellitus was predominant, while sepsis was less common.
- Treatment for cholelithiasis included Hepatoprotective drugs, Antibiotics, Analgesics, Proton Pump Inhibitors, and Antiemetics.
- Complications associated with cholelithiasis included choledocholithiasis, acute calculous cholecystitis, pancreatitis, and gallbladder carcinoma.

Chronic Liver Disease:

- Chronic liver disease was predominantly found in males (68%) compared to females (32%).

- The age distribution showed a peak incidence between 51-60 years (26%) among patients with chronic liver disease.
- Hypertension (HTN) (43%) and Diabetes Mellitus (36%) were the most common comorbidities associated with chronic liver disease.
- Treatment typically involved Hepatoprotective drugs and Monoamine Oxidase Inhibitors (MAOIs).
- Complications of chronic liver disease included Obstructive Jaundice, Esophageal varices, Portal hypertension, Ascites, Hepatomegaly, Hepatic encephalopathy, and Hepatocellular carcinoma.

CONCLUSION

- Based on our findings, the comorbid conditions associated with chronic liver disease and cholelithiasis include Diabetes Mellitus, Hypertension, Coronary Artery Disease, Jaundice, Laparoscopic cholecystectomy, Endoscopic retrograde cholangiopancreatography, and common bile duct stenting are the surgeries used to treat cholelithiasis. Medications commonly prescribed include Udiliv (ursodeoxycholic acid), Analgesics, antiemetics, proton pump inhibitors, and antibiotics.
- Udiliv functions as a gallstone dissolving agent, with associated adverse effects such as diarrhea, abdominal discomfort, and muscle and joint pain.
- Chronic liver disease is managed with medications like Hepatoprotective drugs, corticosteroids, monoamine oxidase inhibitors, and immunomodulators. Surgical interventions such as Transjugular intrahepatic portosystemic shunting (TIPS) and liver transplantation are employed in severe cases.
- Serious complications observed in chronic liver disease include Portal hypertension, esophageal varices, Ascites, Hepatocellular carcinoma, and hepatomegaly.

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