InternationalJournal of
Health Care and Biological Sciences

Case Study Open Access

CASE STUDY ON ALCOHOLIC LIVER DISEASE

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Article History

Received on: 04-02-2022
Revised on: 25-02-2022
Accepted on: 28-03-2022

***Keywords*:** cirrhosis, hepatic injuries, fibrosis, stenosis, stenohepatitis, liver transplantation, end stage alcoholic liver disease.

Abstract

Extreme alcohol utilization is a worldwide medical care issue. The liver supports the best level of tissue injury by highamount of alcohol drinking since it is the essential site of ethanol digestion. Constant and unnecessary alcohol utilization creates a wide range of hepatic injuries, the most trait of which are steatosis, hepatitis, and fibrosis/cirrhosis. Steatosis is the earliest reaction to high amount of alcohol drinking and is portrayed by the statement of fat in hepatocytes. Steatosis can advance to steatohepatitis, which is a more extreme, fiery kind of liver physical issue. This phase of liver sickness can prompt the improvement of fibrosis, during which there is over the top statement of extracellular lattice proteins. The fibrotic reaction starts with dynamic pericellular fibrosis, which might advance to cirrhosis, described by inordinate liver scarring, vascular adjustments, and possible liver failure. Among issue consumers, around 35% foster high level liver illness in light of the fact that various sickness modifiers compound, slow, or forestall alcoholic liver illness. There are still no FDA-endorsed pharmacological or wholesome treatments for treating patients with alcoholic liver infection. Discontinuance of drinking (i.e., restraint) is an essential piece of treatment. Liver transplantation stays the life-saving technique for patients with end-stage alcoholic liver disease.

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Introduction

Alcohol liver disease occurs when the liver is damaged due to excess production of alcohol [1]. Feeling tired, loss of weight, appetite loss, yellowing of the skin and sclera of eye (jaundice), swells in the ankles and stomach, confusion or drowsiness, blood in vomiting and blood in stools [2]. Liver tolerates mild alcohol consumption, but as the consumption of alcohol increases, it leads to disorders of the metabolic functioning of the liver. The initial stage involves the accumulation of fat in the liver cells, commonly known as fatty liver or steatosis. If the consumption of alcohol does not stop at this stage, it sometimes leads to alcoholic hepatitis. With continued alcohol consumption, the alcoholic liver disease progresses to severe damage to liver cells known as “alcoholic cirrhosis." Alcoholic cirrhosis is the stage described by progressive hepatic fibrosis and nodules [3].

Case Study

A 52 year old male patient came to OPD with the complaints of bloody urine since 45 days associated with fever and abdominal distention since 10 days, pedal edema, and facial puffiness. He has history of blood in urine burning micturition, fever and jaundice sine 50 days associated with cold, cough and minimal

expectoration. He is a non-smoker and alcoholic. His vitals are normal. His lab investigations interpret elevated total leucocyte count (18000 cells/cmm), SGOT (67 IU/L); Depressed Haemoglobin (8 g/dl) his ultra sound bladder impression is echogenic lesion right bladder on right side of wall. Based on the patient's subjective and objective data he is diagnosed with alcoholic liver disease with haematuria. He is prescribed with Inj. ceftriaxone 2g BD IV, Inj. Vit K 1amp OD IV, Tab. Furosemide + spironolactone 20mg + 50mg BD P/O, Tab. Propranolol 40mg OD P/O, Inj. Piperacillin + Tazobactam 4.5g TID IV, Inj. furosemide 40mg BD IV and Syp. Lactulose 30ml BD P/O.

Diagnosis

Based on the assessment the patient was diagnosed with " ALCOHOLIC LIVER DISEASE. "

Discussion

Ceftriaxone is an anti-bacterial drug. It inhibits the bacterial cell wall biosynthesis by inhibiting carboxy peptidases, endopeptidases and transpeptidases involved in cell wall synthesis of bacteria. Vit K is a vitamin supplement that acts as blood clotting vitamin and it mimics the proton abstraction from gamma position of protein bound glutamate. Furosemide + spironolactone is a diuretic class of drug which improves the patient's condition by removing excess water and salts from the body into the urine. Propranolol is an anti-hypertensive which decreases the cardiac output, inhibits renin release by kidneys and diminution of tonic sympathetic nerve outflow from vasomotor centres in brain. Syrup Lactulose is a laxative it is a synthetic disaccharide and, in the colon, it breaks down into lactic acid, formic acid and acidic acid which results in increasing osmotic pressure and acidification thereby soften the stool. Penicillin + tazobactam is an antibiotic class of drug that acts as bactericidal agent against a variety of gram positive and negative bacteria and inhibits bacterial spectrum formation and cell wall synthesis.

Drug Interactions

Following are the interactions found in the case study:

1. Propranolol + Furosemide = lowers Blood pressure and heart rate.
2. Ceftriaxome + furosemide = increases risk of kidney problems
3. Furosemide + lactulose = dehydration and electrolyte imbalance

Pharmacist Intervention

- Use Propranolol at the same time daily.
- Avoid taking alcohol as it increases Propranolol side effects.
- Take medication as per the prescribed instructions.
- If dose is missed take it as soon as possible. If it is time for next dose skip missed dose and take next dose.
- Monitor the dose of Furosemide.

Follow-Up and outcomes

Regular follow-up visits must be doneto monitor the patient's condition, adjust treatment strategies, and the frequencyand proper management helps the patient to improve the quality of life.

Patient Management

1. Avoid alcohol completely. Alcohol can damage liver cells, lead to swelling or scarring that becomes cirrhosis, which may prove fatal.
2. Take healthy diet and do exercises.
3. Take low cholesterol food.
4. Drink plenty of water, recommended 7-8 liters/day.
5. A low salt diet is recommended to reduce fluid retention.
6. Place your feet in elevated position to prevent swelling.
7. Avoid taking excessive amounts of vitamin A and D.

Conclusion:

Clinicians ought to evaluate all patients for harmful effects of alcohol use. All patients with alcohol related liver illness ought to stop taking alcohol. Early screening can help the patients to detect the condition before it reaches the end stage of alcohol liver disease. Awareness must be spread to all the patients with excessive alcohol abuse.

Ethical Considerations

Ethical support was received from King George hospital (KGH), Visakhapatnam, Andhra Pradesh.

Acknowledgement

We acknowledge the continuous support from principal of Avanthi Institute of Pharmaceutical Sciences Dr. M.B.V. Raju for the successful completion of study.

Funding

No Funding

Conflict of Interest

The authors have declared no conflict of interest.

Author Contribution

All authors contributed equally.

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