

Nursing Care of Alcoholic Liver Disease

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ALCOHOLIC Liver Disease is a specific progressive syndrome, the direct result of toxic effect of alcohol which begins with faulty liver progressing to alcoholic hepatitis and ending in cirrhosis of liver.

A Case Study

Mr. Waman, aged 40 years, got admitted to Bombay Hospital on September 25, 1994. He was diagnosed as a case of Alcoholic Liver Disease which was confirmed by various investigations. Supportive and symptomatic treatment was given to him and he got discharged on October 5, 1994 after symptom relief.

Assessment of Patient

History

He is a known heavy alcoholic and smoker; fever with chills and rigour for past 5 days; giddiness and generalised weakness; pain in upper abdomen (prickling type, continuous and non-radiating); constipation for 5 days; anorexia for 10 days.

On Examination

Abdomen is distended; tenderness present on Rt. Hypochondriac region on deep palpation; jaundice is present on sclera and nails; he is undernourished (weight=44 kg)

Etiology

Heavy alcoholic injection leads to increased alcohol metabolism in liver,

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Serum Examination

	Patient's Value	Normal Value
Total Protein	5.8 gm%	6.6 - 8.7 gm%
Albumin	2.4 gm%	3.4 - 5.4 gm%
Globulin	3.4 gm%	2.8 - 3.6 gm%
Blood Urea	12 mgm	15-45 mgm
Serum Lipase	190 U/litre	0-160 U/litre
Erythrocyte Sedimentation Rate	122 mms/hr.	0-15 mms./hr.

Significance

With liver disease, serum albumin level decreases and globulin level increases. Increased blood urea shows decreased liver function. Increase in ESR shows inflammation. Elevated serum Lipase level shows necrosis of hepatocytes.

progressively inflammation and necrosis of liver paranchyma.

Patho-Physiology

Human chronically fed alcohol is hypermetabolic that leads to decreased O₂ tension in centrizones. That results in hypoxia, necrosis and collagenosis. When the necrotic substances are removed by phagocytes the lobules collapse and blood vessels develop kinks. Fibrous tissue develops in the damaged area. When

the proliferation of hepatocytes cannot keep pace with destruction the condition advances.

Signs and Symptoms

(1) Anorexia, (2) Nausea, (3) Abdominal pain, (4) Pyrexia, (5) Hepatomegaly, (6) Jaundice, (7) Ascites, (8) Lower leg edema, (9) Anaemia, (10) Oesophaegal Varices, (11) Internal Hemerrhoids, (12) Prominent abdominal veins, (13) Gynecomatia.

C.B.C.

	Patient's Value	Normal Value
Erythrocytes/Cmm	3220,001/Cmm	5016,000/Cmm
Haemoglobin/100 cc	11.02 grms	14-16 gm/100cc
Leucocytes/Cmm	13.600 cmm	5000-10000 cmm

Significance

Low haemoglobin level indicates anaemia

Investigations	Patient's Value	Normal Value
Total Protein	5.8 gm%	6.6-8.7 gm%
Cholesterol	109 mg%	125-225 mg%
Total Bilirubin	0.6 mg%	0-1.0 mg%
Alkaline Phosphatase	124 mu/ml	30-115 mu/ml
Creatinine Phosphokinase	8.9 mu/ml	125-195 mu/ml
SGPT	12 mu/ml	0-40 mu/ml
SGOT	14 mu/ml	0-40 mu/ml

Significance

- (1) Blood cholesterol level decreases when the cell function is impaired
- (2) Creatinine Phosphokinase is increased with liver disease.
- (3) Increased Bilirubin indicates obstruction to bile flow.

Diagnostic Evaluation

1. Liver Scan shows diffused hepatomegaly
2. Endoscopy: no obstructive lesion present in biliary tract.
3. Ultrasonography: no portal vein thrombosis; shows diffuse hepatomegaly.

Management

Medical Management

The following can be administered:

- (1) I.V. Fluids and electrolyte in case of vomiting and diarrhoea, (2) Antipyretics like Tab. Crocin in case of fever, (3) Antacid like Tab. Rantac 150 mg. BD, (4) Analgesic and sedative like inj. Phenargen 50 mg Im., (5) Mild laxatives can be given in case of constipation, (6) Iron supplement to correct anaemia, (7) Balanced diet of high protein, calorie and low fat, (8) Vitamin supplements like Vit. B. Complex, (9) Ensured bed rest, (10) Abdominal paracentesis can be done in case of ascites.

Surgical Management in Case of Portal Hypertension are:

- (1) Porta Caval Anastomosis - A shunt is made between portal vein and inferior vena cava by which the blood is bypassed to reduce portal hypertension.

(2) Spleno Renal Shunt: Between splenic vein and left renal vein.

(3) Mesocaval Shunt: between superior mesentric and inferior vena cava.

Nursing Management

(1) Psychological support is to be given.

(2) Mild analgesics as well as diversional therapies should be provided to give relief from pain.

(3) Abdominal girth should be monitored.

(4) Rest and sleep should be ensured.

(5) Observe for bleeding from any site.

(6) Cold therapy can be given in case of fever.

(7) Encourage plenty of oral fluids, high roughage diet. In case of constipation, simple enema can also be given.

(8) Ensure optimum nutritional intake.

(9) Plan alternative periods of rest and activity.

(10) Encourage the patient to abstain from alcohol.

(11) Explain the harmful effects of alcohol on body.

(12) Introduce her or him to Alcoholics Anonymous groups.

(13) Counsel the family members

and encourage them to cope with her or his illness and give psychological support.

(14) Refer her or him to alcohol de-addiction clinics.

Health Education

The patient is educated regarding:

- (1) Harmful effects of alcoholism on body. (2) Means of alcohol abstinence. (3) Possibilities of complications. (4) Development of new health habits. (5) Consumption of high calorie, high protein, low fat diet, and iron rich stuffs and plenty of oral fluids. (6) Alternative period of rest and activity.

Complications

- (1) Hepatic encephalopathy
- (2) Hepatic coma
- (3) Portal hypertension
- (4) Oesophageal varices
- (5) Ascites
- (6) Anaemia
- (7) Liver failure

Bibliography

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