



## LIVER CIRRHOSIS -A CASE STUDY

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### ABSTRACT

To secure an intact airway is an important goal for the safety of patient. Sometime unrecognized or unanticipated difficult airway may lead to unexpected bad outcome like hypoxic brain damage or death. The aim and objective of this study is to predict difficult laryngoscopy using Modified Mallampati classification and Upper lip bite test as methods of airway assessment and to confirm the above findings with Cormack and Lehane grading. These tests will be used in combination to assess their sensitivity and specificity in order to determine their positive predictive value and negative predictive value.

**Material and methodology:** The preoperative airway assessment was conducted using both the screening tests, Modified Mallampatti test and the Upper lip bite test. Modified Mallampatti test grade III or IV and Upper lip bite test grade III were considered as predictors of difficult intubation. Intubation was considered difficult if the view on laryngoscopy was Cormack and Lehane grade III or IV. The results were evaluated on the basis of sensitivity, specificity, positive and negative predictive value of these tests.

**Results:** The Modified Mallampati test has higher sensitivity of 71.43% and negative predictive value 97.65% resulting as better individual test for predicting difficulty for intubation than by Upper lip bite test with sensitivity of 28.57% and negative predictive value of 94.79%. This means that several patients with difficult intubation will not be identified by Upper lip bite test.

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### INTRODUCTION

The cirrhosis is the slow progressive, chronic disease of the liver. Due to the slow progressive many patients are reported after the occurrence of the complications. If we detect the cause in early stage, the complications will be prevented.

#### Case Study

Mr. x 42 years male was admitted with the complaints of haematemesis for 2 days. Abdominal pain, pruritis abdominal distention, weight loss, continuous mild fever, dyspepsia, weakness, nausea and vomiting Since 1 week. He was treated for jaundice before 10 yrs .physical examination revealed Mild abdominal distension and no colour change. Abdomen Soft in nature.Tenderness over the left hypochondrium. Ultrasound revealed liver enlargement, cirrhosis of liver, esophageal varices grade II. To relieve ascitesparacentesis was done. To treat Esophageal varices sclerotherapy was given

#### Definition

Cirrhosis of the liver is the term applied to chronic disease of the liver characterized by diffuse inflammation and fibrosis resulting in drastic structural changes and significant loss of liver function

#### Etiology

- Alcohol
- Chronic viral hepatitis (B or C)
- Non –alcoholic fatty liver disease e.g. intestinal bypass operations for obesity.

#### Immune

- Primary sclerosing cholangitis.
- Auto immune liver disease

#### Biliary

- Primary biliary cirrhosis
- Cystic fibrosis
- Genetic
- Haemochromatosis
- $\alpha$  1 antitrypsin deficiency.
- Wilson's disease
- Hepatic venous congestion
- Budd- chiari syndrome.
- Drugs e.g. methotrexate.
- Galactosaemia
- Glycogen storage disease

- Venous-occlusive disease
- Cryptogenic (idiopathic).

### Pathology

The changes in cirrhosis usually affect the whole liver, however, in biliary cirrhosis they can be patchy. They include progressive and widespread death of liver cells associated with inflammation and fibrosis, leading to loss of the normal architecture. Destruction of architecture causes distortion and loss of the normal hepatic vasculature with the development of Porto systemic vascular shunts and the formation of nodules rather than lobules due to the proliferation of surviving hepatocytes.

### Clinical manifestations

- Hepatomegaly
- Jaundice - Due to failure to excrete bilirubin.
- Circulatory changes - palmar erythema

Spider telangiectasia due to arteriolar changes Cyanosis due to pulmonary arteriovenous shunts.

Hypotension

GI symptoms - Vague morning indigestion

- Flatulent dyspepsia
- Abdominal pain
- Anorexia.
- Nausea and vomiting
- Weight loss

### Endocrine changes

- Loss of libido hair loss
- Men Gynaecomastia, testicular atrophy, impotence.
- Women Breast atrophy, irregular menses, amenorrhoea

### Hemorrhagic tendency

- Bruises
- Purpura
- Epistaxis

Portal hypertension Splenomegaly, collateral vessels, variceal bleeding, factor hepatitis Hepatic encephalopathy

Name of the investigation	Patient value	Normal value	Inference
Blood – grouping	O +ve		
-Total count	6500 cells /cumm	5000-11000 cells / cumm	Normal
-Differential count			
N	58%	40-60%	
L	30%	20-40%	
E	2%	206%	Normal
-ESR	60 mm/hr	5-15 mm /hr	Increased
-Haemoglobin	9.8gm%	13-15 gm%	Decreased
-Bleeding time	4 min	3-5 min	Normal
-Clotting time	6min	3-8 min	Normal
-Alucose	90 mg/dl	80-140 mg/dl	Normal
-Urea	20 mg /dl	15-40 mg/dl	Normal
-Creatinine	0.8 mg/dl	15-40 mg/dl	Normal
Serum bilirubin			
*Conjugated	0.5 mg/dl	0.2-0.6 mg/dl	Normal
* Unconjugated	1.0 mg/dl	0.2-0.5 mg/dl	Increased
Total protein	6.3 g/dl	5.8-7.2 g/dl	Normal
Albumin	2.7 g/dl	3.5-4.5g/dl	Normal
Alobulin	4.1g/dl	2.5-3.5g/dl	Normal
AST (SGOT)	5.6 iu/l	0.41 in/l	Increased
ACT (SGPT )	22 iu/l	0-45 iu/l	Normal
ACP	60 iu/l	30-115 iu/l	Normal

### Other features

- Mild fever
- Weakness, fatigue, muscle cramps
- White rains.
- Digital clubbing
- Pigmentation most in haemochromatosis and prolonged cholestasis.

### Investigations

USG Abdomen -Liver is enlarged its shaped is altered.  
Endoscopy -Grade II varices in the distal 1/3<sup>rd</sup> of the esophagus.

Stomach : Normal

Duodenum : Normal

### Management

#### Medical management

Sodium and water restriction:

Duretic drugs: 20mg lasix od

Vitamins and mineral supplements

Antihistamines for pruritis

Paracentesis

#### Surgical management

- splenectomy.
- Shunt Surgery:
- Peritoneo-venous (Leveen) Shunt
- TIPPS(Transjugular intrahepatic portosystemic shunt) :
- Management of variceal bleeding
- Banding:
- Sclerotherapy

MR.X underwent paracentesis and sclerotherapy.

### NURSING MANAGEMENT

- Bed rest is given and gradually increase the activities upto tolerance.
- Fowler's position may decrease the difficulty in breathing.
- Administered modifications to relieve pain.
- Restricted the sodium rich diets and give restricted amount of fluids.
- Administered diuretics as per order.
- To prevent the infection followed the sterile technique while doing procedure to the patient.
- Provided soft diets to decrease the bleeding tendencies of varices.
- Provided a well balanced diet-high calorie, high carbohydrate and vitamins and protein rich diets.
- Used soft mattresses, frequently change the position of client to prevent skin breakdown.

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