

# Nursing Perspectives on Assessment and Management of Esophageal Varices

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**Abstract:** *Esophageal varices are a serious complication of liver disease, characterized by the enlargement of veins in the esophagus due to increased pressure from the liver. As a significant cause of morbidity and mortality in patients with liver cirrhosis, understanding the nursing aspects of esophageal varices is crucial for improving patient outcomes. This article will explore the risk factors, assessment, diagnosis, management, and nursing interventions for esophageal varices and patient education.*

**Keywords:** Esophageal varices, crucial, liver cirrhosis, mortality

## 1. Introduction

Oesophageal varices pose a silent yet potentially life-threatening health risk that demands immediate attention. These swollen veins in the oesophagus often show no warning signs until they begin to bleed, which can result in severe complications or even death if left untreated. While these enlarged veins are particularly common in people with liver disease, especially cirrhosis, their diagnosis typically requires an endoscopic examination. The condition primarily develops due to high blood pressure in the portal vein, resulting in dangerous bleeding that requires urgent medical intervention.

## 2. Review of Literature

a) A Literature Review of Non-Invasive Predictors of Esophageal Varices in Liver Cirrhosis Patients

Suvarna Sathri (2025), conducted a study to assess non-invasive predictors like platelet count, spleen size, and Child-Pugh class to identify high-risk patients, improving screening accuracy and reducing unnecessary endoscopies in cirrhotic individuals. This one-year observational study at Andhra Medical College included newly diagnosed cirrhotic patients. After ethical approval and informed consent, clinical, biochemical, and ultrasound data were collected. Non-invasive parameters were assessed and correlated with variceal grading by endoscopy using modified Paquet's classification to predict esophageal varices in cirrhosis. Among 100 cirrhotic patients, 44% had large varices, more prevalent in advanced Child-Pugh classes and severe ascites ( $p < 0.001$ ). Large varices correlated with lower platelet count, albumin, and platelet/spleen ratio, and higher bilirubin, prothrombin time, portal vein diameter, and spleen size, indicating significant association with disease severity. The study demonstrates that non-invasive parameters, including platelet count, spleen size, liver function tests, and Child-Pugh score, can reliably predict large esophageal varices. Incorporating these markers into routine evaluation may reduce dependence on endoscopy, enabling targeted surveillance and timely intervention in high-risk cirrhotic patients, especially in low-resource settings.

b) A Literature Review of Nurses' Knowledge and Practices Regarding Care of Patients during Esophageal Varices Attack

Mostafa Reda Ibrahim (2024), conducted a study to assess nurses' knowledge and practices regarding care of patients during esophageal varices attack. A descriptive design was utilized in the study. Setting: The study was conducted at Kasr Alainy Internal Medicine Hospital; Emergency Department that affiliated to the Cairo University. A convenient sample of all available nurses ( $n=55$ ) was enrolled in the study. Two tools were used in the study: Tool I: Self-administered interview questionnaire which included two parts: part I: personal characteristics, part II: nurses' knowledge assessment. Tool II: Nurses' practices observational checklist. 58.2% of the studied nurses had unsatisfactory knowledge level regarding care of patients during esophageal varices attack. Also, 50.9% of the studied nurses had incompetent practices level and 49.1% of the studied nurses had competent practices level regarding total care of patients during esophageal varices attack.

## 3. Definition

Esophageal varices are enlarged veins in the esophagus. Esophageal varices most often happen in people with serious liver diseases.

### Etiology

- Severe liver scarring, called cirrhosis
- A blood clot, also called thrombosis
- Parasitic infection: Schistosomiasis

## 4. Risk Factors

- High portal vein pressure
- Large varices
- Red marks on the varices
- Severe cirrhosis or liver failure
- Continued alcohol use

## 5. Types

Esophageal varices can be classified based on their size and the risk of bleeding:

- **Small Varices:** These are less than 5 mm in diameter and have a lower risk of bleeding.
- **Large Varices:** Greater than 5 mm in diameter, these varices are at higher risk of bleeding.
- **Red Wine Signs:** These are longitudinal red streaks on the varices, indicating an increased risk of bleeding.

## 6. Symptoms

- Hematemesis
- Melena
- Light headedness or syncope due to blood loss
- Shock in severe cases
- Jaundic:
- Ascites
- Spleenomegaly

## 7. Diagnostic Evaluation

- Endoscopy
- Ultrasound
- CT Scan
- MRI
- Laboratory Tests

## 8. Case Study of Mr. X

A 45-year old man has been admitted to the hospital with complaints of hematemesis, melena and light headedness for 4 days. After a detailed investigation he was diagnosed as esophageal varices.

## 9. Management

- Vasoactive drugs like octreotide and vasopressin
- Antibiotics
- Band ligation
- Sclerotherapy
- Transjugular intrahepatic portosystemic shunt (TIPS)
- Liver transplant

## 10. Nursing Management

- Monitor the patients physical condition and evaluate emotional responses and cognitive status.
- Monitor and record the vital signs.
- Asses the patients nutritional and neurologic status.
- Provide oral hygiene and moist sponges to lips.
- Provide a quiet environment may help to relieve the patients anxiety and reduce agitation.
- Administer prescribed medications, which may include vasopressin and vitamin K.

## 11. Complications

- Ascites
- Hepatic encephalopathy
- Spleenomegaly

## 12. Prevention

- Don't drink alcohol.

- Eat a healthy diet.
- Maintain a healthy weight.
- Use chemicals sparingly and carefully.
- Reduce the risk of hepatitis.

## 13. Conclusion

Esophageal varices, though a serious complication of liver disease, can be effectively managed with timely treatment and preventive care. Early detection and the right interventions are key to preventing life-threatening bleeding.

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