Nurses' Performance Regarding Caring for Patients with Esophageal Variceal Bleeding

Thesis

Submitted for Partial Fulfillment of Master Degree in Medical-surgical Nursing (Critical Care Nursing)

By

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LIST OF ABBREVIATIONS

Abb.	Meaning
ABC	: Airway, Breathing, Circulation
ABG	: Arterial Blood Gases
ALP	: Alkaline Phophatase
ALT	: Alanine Transaminase
AST	: Aspartate Transaminase
BP	: Blood Pressure
BUN	: Blood Urea Nitrogen
CBC	: Complete Blood Count
CT	: Computed Tomography
CVP	: Central Venous Pressure
EB	: Esophageal Bleeding
EBL	: Esophageal Band Ligation
ED	: Emergency Department
EGD	: Esophagogastro Dudenoscopy
EGDS	: Esophagogastric Devascularization Splenectomy
ETT	: Endotracheal Tube
EV	: Esophageal Varices
EVB	: Esophageal Variceal Bleeding
EVL	: Esophageal Variceal Ligation
GE	: Gastroesophageal
GGT	: Gamma-Glutamyl Transpeptidase

GI : Gastrointestinal

GIB : Gastrointestinal Bleeding

GIT : Gastrointestinal Tract

HCA : Health Care Associated

HE : Hepatic Encephalopathy

HIV : Human Immune Deficiency Virus

HRS : Hepatorenal Syndrome

HVPG : Hepatic Venous Pressure Gradient

I&O : Intake and Output

ICU : Intensive Care Unit

IV : Intravenous Fluid

LDH : Lactic Dehydrogenase

LOC : Loss of Conscious

LR : Lactated Ringer

MCQs : Multiple of Choice Questions

MELD : Model for End Liver Disease

MRI : Magnetic Resonance Imaging

N : Number

NaCl : Sodium Chloride

NG : Nasogastric

NPO : Nothing Per Mouth

NSAID : Nonsteriodal Anti inflammatory Drugs

NV : Normal Value

NVUGIB : Non Variceal Upper Gastrointestinal Bleeding

OGD : Osophagogastricduodenoscopy

OTC : Over The Counter

PBC : Primary Biliary Cirrhosis

PRBCs : Packed Red Blood Cells

PSC : Primary Sclerosing Cholangitis

RBCs : Red Blood Cells

ROM : Range of Motion

SBP : Spontaneous Bacterial Peritonitis

SGOT : Serum Glutamic Oxaloacetic Transaminase

SGPT : Serum Glutamic Pyruvate Transaminase

SO : Significant Other

T&F : True or False

TIPS : Transjugular Intrahepatic Portacaval Shunt

TIPSS : Transjugular Intrahepatic Portosystemic Stent- Shunt

UGIB : Upper Gastrointestinal Bleeding

UGIT : Upper Gastrointestinal Tract

UK : United Kingdom

VB : Variceal Bleeding

VUGIB : Variceal Upper Gastrointestinal Bleeding

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Abstract

Variceal hemorrhage is a serious life-threatening complication of portal hypertension. The patient with EVB may present with hematemesis, melena, or general deterioration in mental or physical status and symptoms of shock Nursing care is very important during initial period to achieve best possible outcome and have good prognosis for the patient. **Aim:** This study aimed to assess nurse's performance regarding care of patients with esophageal variceal bleeding. **Design** A descriptive exploratory design was utilized for the conduction of this study .**Setting** the study was carried out in intensive care unit of hematemsis at Elmery hospital affiliated to Alexandria University. **Study sample:** A purposive subject of (40) registered nurses caring for patients with EVB. **Data Tools:** three tools were used for data collection; 1st tool was Nurses' self-administered questionnaire and the 2nd tool was nurses' practice observational checklist and 3rd tool was nurses' attitude questionnaire. **Result:** the results of this study showed that, 70% of the studied nurses were having unsatisfactory total level of knowledge regarding pain management of patients with EVB, while 55% of them had got satisfactory level of practice and 62.5% had positive attitude. **Conclusion**: There were unsatisfactory level of knowledge, satisfactory level of practice among nurses under study. **Recommendations:** In-service training program must be developed based on need assessment for nurses in relation to care and management associated with EVB and evaluating the effect of its implementation on their performance and patients' outcome.

Keywords: Nurses' Knowledge, Nurses' Practice**,** Nurses' attitude, esophageal variceal bleeding, Intensive Care Unit.

Introduction

Variceal hemorrhage is a serious life-threatening complication of portal hypertension with overall mortality rates historically reported as 30-50%. Bleeding or hemorrhage from esophageal varices (EV) occurs in approximately one third of patients with cirrhosis and varices. Esophageal variceal bleeding (EVB) is the commonest cause of acute upper gastrointestinal bleeding (UGIB) in Egypt. It accounts for 75% of all UGIB and responsible for 20% of deaths among Egyptian patients between the ages of 35 to 75 years, while in the Western countries it accounts for 30% of all UGIB **(Abd Elkader, El Sabaee & El Sayed, 2014).**

Esophageal variceal bleeding (EVB) remains a major complication of portal hypertension in patients with liver cirrhosis. Varices are varicosities that develop from elevated pressure in the veins that drain into the portal system. The risk of variceal bleeding increases with disease severity and variceal size. They are prone to rupture and often are the source of massive hemorrhage from upper GI tract and the rectum. Normal portal pressure is 1-5 mmHg. When the portal pressure gradient (difference in pressure between the pressure in the portal vein and hepatic vein) exceeds 10-12mmHg, varices will form **(Rajoriya & Gorard, 2013)**.

Esophageal varices are dilated, tortuous and engorged blood vessels usually found in the submucosa of the lower esophagus, but they may develop higher in the esophagus or extend into the stomach. Varices may develop in the esophagus, stomach, duodenum, colon, rectum and anus. The most clinically significant site of varices is the gastro-esophageal junction because of the propensity of varices in this area to rupture, resulting in massive gastrointestinal (GI) hemorrhage **(Pellico, 2013).**

Factors that contribute to hemorrhage are muscular exertion from lifting heavy objects, straining at stool, sneezing, coughing, vomiting, esophagitis, irritation of vessels by poorly chewed foods or irritating fluids or reflux of stomach contents (especially alcohol). Salicylates and any medication that erodes the esophageal mucosa or interferes with cell replication also may contribute to bleeding **(Morton & Fontaine, 2013).**

The patient with EVB may present with hematemesis, melena, or general deterioration in mental or physical status and symptoms of shock (cool clammy skin, hypotension and tachycardia may be present). The EVB is a life-threatening and can result in hemorrhagic shock, producing decreased cerebral, hepatic, and renal perfusion. In turn, there is an increased nitrogen load from bleeding into the gastrointestinal tract and an increased serum

ammonia level, increasing the risk for encephalopathy **(Pellico, 2013).**

The initial management of EVB consists of treatment to restore hemodynamic stability through blood transfusion and intravenous (IV) fluids followed by variceal eradication. This can be done endoscopically by either injection sclerotherapy and band ligation. In an actively bleeding patients, vasoactive medications (Vasopressin & Somatostatin) are administered. Patients who don't respond to endoscopic management will be treated with a surgical bypass procedure or devascularization and transection **(Nettina, 2014 and Urden, Stacy & Lough, 2014).**

Nursing care is very important during initial period to achieve best possible outcome and have good prognosis for the patients. The overall nursing assessment includes; monitoring the patient's physical condition, evaluating emotional responses and cognitive status. The nurse monitors and records vital signs and assesses the patient's nutritional and neurologic status. This assessment will assist in identifying hepatic encephalopathy resulting from the break-down of blood in the GI tract and arising serum ammonia level. The nurse provides support and explanations regarding medical and nursing interventions **(Abo Elnoor, 2013).**

Significance of the study:

The EVB is a life-threatening emergency that results in a high morbidity and mortality and it accounts for 75% of all UGIB and responsible for 20% of deaths among Egyptian patients between the ages of 35 to 75 years, while in the western countries it accounts for 30% of all UGIB Therefore patients with EVB are considered critically ill patients and required urgent admission to the intensive care unit. So, the role of the nurse requires specific attention to decrease hospitalization period and complications. It is important to apply specific nursing intervention that can entails knowledge and skills required by nurses in order to carry out care effectively **(Semltzer, Hinkle, Bare & Cheever, 2010).**

So, this study aimed to assess nursing performance of patients with EVB through assessing nurse's level of knowledge, practice and attitude regarding care for patient with esophageal variceal bleeding.