Hepatic Encephalopathy; Prevalence, Precipitating Factors and Challenges of Management in a Resource-Limited Setting

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Abstract

Background and Aims: Hepatic encephalopathy, a neuropsychiatric syndrome caused by portosystemic venous shunting, clinical presentation ranges from minimal to overt H.E. It is a common complication of advanced liver disease with significant morbidity and mortality The aim of this study was to assess the prevalence, common precipitating factors, and outcomes of hepatic encephalopathy in patients with preexisting liver disease.

Methods: A hospital based, retrospective chart review study was conducted at Bugando Medical Centre a tertiary hospital in Mwanza region. The target population included all patients aged > 18 years admitted with Hepatic encephalopathy from January 2009 to June 2015. Patients were enrolled using a detailed checklist, personal identifications were removed and analysis was done using the SPSS version 17.0.

Results: A population of 88 patients with Hepatic encephalopathy were enrolled with a mean of 47 years (SD +/-17 years). Among patients admitted to the medical ward, the prevalence was 0.4% (88/23942). Most common liver disease and complications including alcoholic cirrhosis, hepatitis B infection, and hepatocellular carcinoma were present in 47.7% of (42/88), 22.7% (20/88), and 23.9% (21/88) patients, respectively. Majority had West Haven grade 3, 36.4% (32/88), and grade 4, 18.2% (16/88).

Precipitating factors included diuretic therapy on patients with ascites 27.2% (44/162), infections 21.6% (35/162), blood transfusions, 16.7% (27/162), and upper gastrointestinal bleeding 17.3% (28/162). Most died during their hospitalization, 75% (66/88). The remaining 25% (22/88) were discharged. Majority of the cohort, 72.7% (64/88), had less than 3 months survival after diagnosis, while 27.3% (24/88) survived more than 1 year.

Conclusions: We found severe Hepatic encephalopathy presenting in patients with preexisting liver disease associated with poor outcomes, posing challenges in management and survival. The use of newer and superior agents like polyethylene glycol, identification of subclinical Hepatic encephalopathy and targeting early removal of precipitating factors is imperative. Screening those at risk of developing Hepatic encephalopathy would likely improve outcomes.

Keywords: Hepatic encephalopathy; West Haven; Tanzania

Introduction

Background

Hepatic Encephalopathy (H.E), defned as a spectrum of neuropsychiatric abnormalities in patients with liver dysfunction afer exclusion of brain disease, is a common complication of advanced liver disease with signifcant morbidity and mortality [1]. Te exact worldwide prevalence of hepatic encephalopathy remains unknown, and is possibly a result of diferences in etiological factors, severity of the disease, and challenges in diagnosing minimal or sub-clinical H.E [2]. Studies in developed countries reveal minimal hepatic encephalopathy afects the quality of life in 70% of patients with liver cirrhosis [3]. Other studies report on overt H.E occurring in 30% to 45% of patients with cirrhosis and 10 to 20% of patients with Transjugular Porto Systemic Shunts (TIPS) [4]. Local data in Nigeria reported a prevalence of H.E in 6% of patients admitted to the gastroenterology medical ward [5].

Common H.E precipitating factors include sepsis, gastrointestinal (GI) bleeding, constipation, and diuretic use, and once treated, H.E usually subsides signifcantly [6]. However, patient outcome relies on early identifcation.

Treatment of H.E targets reducing the ammonia load in the body. Commonly this is achieved with lactulose use, though polyethylene glycol (PEG) was recently shown to be superior to lactulose in treating H.E of hospitalized patients [7]. Targeting broad-spectrum activity •QxÙ &

Rationale

Variable	Frequency	Percentage
Severity of H.E		
Grade 1	10	11.6
Grade 2	30	34
Grade 3	32	36.4
Grade 4	16	18.2
Type of H.E		
A	20	22.9

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