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AVERAGE AMOUNT OF ALCOHOL INTAKE IN PATIENTS ADMITTED WITH ALCOHOLIC HEPATITIS IN INDIA: A RETROSPECTIVE STUDY

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Abstract

Background: Alcoholic hepatitis (AH) is a severe inflammatory liver disease caused by prolonged excessive alcohol consumption. Quantifying ethanol intake is essential for understanding its clinical spectrum and guiding preventive strategies.

Objectives: To determine the average daily alcohol intake (in grams of ethanol) among patients admitted with alcoholic hepatitis in a tertiary-care hospital in India.

Methods: A retrospective observational study was conducted over one year in the Department of Medicine. Seventy-nine patients diagnosed with alcoholic hepatitis between October 2024 and September 2025 were included. Data on quantity and type of alcohol consumed were retrieved from hospital records and converted to grams of ethanol using the formula: g ethanol = volume (ml) × ABV (%) × 0.8.

Results: Of the 79 patients (72 males, 7 females; mean age 46 ± 9 years), the mean daily ethanol intake was 118 ± 52 g/day; median 110 g (IQR 80–150 g). Eighty-five percent consumed >80 g/day. Spirits (68%) were the predominant beverage, followed by country liquor (22%) and beer (10%). Mean duration of alcohol use was 11.3 ± 4.8 years.

Conclusion: Patients admitted with alcoholic hepatitis had very high ethanol consumption, exceeding recognized hepatotoxic thresholds. Early screening and community-level interventions are needed to reduce the burden of alcohol-related liver disease.

Introduction

Alcoholic liver disease (ALD) remains a major preventable cause of liver-related morbidity and mortality worldwide. It spans a continuum from fatty liver to alcoholic hepatitis and cirrhosis, with alcoholic hepatitis (AH) representing the acute, inflammatory stage that carries a high short-term mortality[1]. The pathogenesis involves oxidative stress, acetaldehyde toxicity, cytokine activation, and immune-mediated hepatocellular injury[2]. Among several risk factors, the quantity and duration of ethanol intake are key determinants of liver injury[3]. Sustained consumption exceeding 60 g/day in men or 40 g/day in women markedly increases risk[4]. In India, alcohol consumption has risen sharply over the past two decades, fuelled by urbanization and wider availability[5]. According to the National Family Health Survey (NFHS-5), about 18% of adult men and 2% of women consume alcohol, with

wide regional variation[6]. In rural and semi-urban regions, country liquor and distilled spirits with high ethanol content dominate[7]. Despite this, quantitative data on ethanol consumption in Indian patients with alcoholic hepatitis are scarce[8]. This retrospective study was therefore designed to estimate the average daily ethanol intake among patients admitted with alcoholic hepatitis in a tertiary-care hospital in northern India and to analyze patterns of consumption in this high-risk group.

Materials and Methods

A retrospective observational study was conducted in the Department of Medicine, Autonomous State Medical College, Gonda, Uttar Pradesh, India, covering admissions from October 2024 to September 2025. Inclusion criteria included patients aged ≥18 years with a diagnosis of alcoholic hepatitis based on clinical and biochemical criteria. Exclusion criteria included viral, autoimmune, or drug-induced hepatitis and incomplete alcohol consumption records. Demographic variables (age, sex), duration and type of beverage, and quantity consumed were extracted from records. Reported volumes were converted to grams of ethanol using the formula: g ethanol = volume (ml) × ABV (%) × 0.8. Data were analyzed using SPSS v25.

Results

Of the 79 patients (72 males and 7 females; mean age 46 ± 9 years), the mean duration of alcohol use was 11.3 ± 4.8 years. The mean daily ethanol intake was 118 ± 52 g/day; median 110 g (IQR 80–150 g). Eighty-five percent consumed more than 80 g/day. Spirits were the predominant beverage (68%), followed by country liquor (22%) and beer (10%).

Discussion

This study found that patients with alcoholic hepatitis consumed an average of 118 g ethanol/day, similar to values reported in other Indian series (100–140 g/day)[9–12]. The majority exceeded 80 g/day, well above hepatotoxic thresholds[13]. Indian patterns reflect stronger beverages and binge drinking[14]. Nutritional deficiency, poor diet, and delayed healthcare access exacerbate hepatic injury[15]. Genetic polymorphisms may influence susceptibility[16]. Our findings emphasize the need for screening, early intervention, and public-health measures to limit access to high-strength liquor and promote awareness.

Conclusion

The mean alcohol intake among patients admitted with alcoholic hepatitis was 118 ± 52 g ethanol/day. Most patients were heavy drinkers consuming spirits or country liquor for over a decade. Quantifying ethanol consumption in grams/day should become standard practice in clinical records.

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