

## Review Article

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## Beer Potomania: A Literature Review of an Underrecognized Cause of Severe Hyponatremia

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### ABSTRACT

Beer potomania is a rare yet clinically significant cause of hyponatremia in patients with chronic alcohol use. Characterized by excessive beer consumption and insufficient solute intake, it leads to impaired free water excretion and profound electrolyte imbalance. This research article explores the pathophysiology, diagnostic criteria, and management strategies for beer potomania through a comprehensive review of available literature. We highlight the diagnostic challenges posed by overlapping features with more common causes of hyponatremia, such as syndrome of inappropriate antidiuretic hormone secretion (SIADH). A systematic approach to diagnosis, including dietary history and biochemical markers, is essential for timely and effective treatment. This review emphasizes the importance of recognizing beer potomania to prevent complications, including osmotic demyelination syndrome, in vulnerable populations.

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### Introduction

Hyponatremia is the most frequently encountered electrolyte disorder in clinical practice and poses significant diagnostic challenges due to its diverse etiologies. Among these, beer potomania is an underrecognized but important cause of profound hyponatremia in patients with chronic alcohol use. First described in the 1970s, beer potomania results from excessive beer consumption coupled with poor dietary intake, leading to low solute availability for free water excretion.

The clinical presentation of beer potomania often overlaps with other causes of hyponatremia, such as SIADH, making it a diagnostic challenge. The key distinguishing feature lies in the dietary history, which reveals exclusive beer consumption with little to no intake of protein or sodium-rich foods. This article aims to summarize the pathophysiology, diagnostic workup, and management strategies for beer potomania based on a detailed review of the literature.

### Methods

A comprehensive review of the literature was conducted using PubMed, Google Scholar, and other medical databases. Search terms included 'beer potomania,' 'alcohol-associated hyponatremia,' and 'low solute syndrome.' Relevant articles published between 2000 and 2023 were included. Case reports, clinical reviews, and original research studies were analyzed to synthesize the findings presented in this article.

### Discussion

Beer potomania is a rare but clinically significant cause of hyponatremia that underscores the importance of thorough dietary and social history in patients presenting with electrolyte disturbances. The condition arises due to excessive beer consumption, minimal protein or sodium intake, and alcohol's inhibitory effects on gluconeogenesis. Key diagnostic features include profound hyponatremia (serum sodium <120 mEq/L), low serum and urine osmolality, and hypouricemia.

Management focuses on cautious correction of sodium levels to avoid osmotic demyelination syndrome and involves multidisciplinary care, including nutritional support and alcohol cessation strategies. This review highlights the need for increased awareness among clinicians to prevent complications and improve outcomes [1-5].

### Conclusion

Beer potomania represents a rare but critical cause of hyponatremia that requires timely diagnosis and intervention. A detailed dietary and social history remains the cornerstone of diagnosis, while careful management of sodium correction prevents potentially fatal complications. This literature review underscores the importance of recognizing beer potomania in vulnerable populations and highlights the need for a systematic, multidisciplinary approach to care.

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