



Persistent Appetite Loss Following Treatment for Hyperglycaemia and Diabetic Ketoacidosis

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Abstract

The persistence of appetite loss following treatment for hyperglycemia and diabetic ketoacidosis is a notable phenomenon in clinical practice. In this case report, we present the clinical course of a patient who experienced ongoing appetite suppression despite appropriate management of hyperglycemia and resolution of diabetic ketoacidosis. The case underscores the importance of recognizing and addressing factors contributing to persistent appetite loss in diabetic patients, beyond glycemic control alone. Further research is warranted to elucidate the mechanisms underlying this phenomenon and develop targeted interventions to improve appetite and overall nutritional status in this population.

Keywords: Appetite loss; Hyperglycaemia; Diabetic ketoacidosis; Persistence; Treatment; Clinical case

Introduction

Appetite loss is a common complication in individuals with hyperglycaemia and diabetic ketoacidosis (DKA), often attributed to metabolic disturbances and electrolyte imbalances [1]. While prompt treatment of hyperglycaemia and resolution of DKA are typically associated with the restoration of appetite, there exist cases where appetite suppression persists despite adequate medical intervention. This phenomenon poses clinical challenges and highlights the need for a deeper understanding of the underlying mechanisms involved. In this paper, we present a case of persistent appetite loss following treatment for hyperglycaemia and DKA, emphasizing the importance of recognizing and addressing this complication in diabetic patients. By exploring potential contributing factors and discussing therapeutic implications, we aim to shed light on this clinically relevant issue and stimulate further research in this area [2]. The instance underscores the peril of euglycemic diabetic ketoacidosis (DKA) following bariatric surgery and the use of SGLT2 inhibitors, accentuating the significance of patient education and healthcare provider surveillance. Potential factors encompass heightened urinary glucose excretion triggered by SGLT2 inhibitors [3], diminished carbohydrate consumption post-surgery, and plausible consequences of insulin cessation. The existing guideline from AACE advocating for SGLT2 inhibitor cessation 24 hours prior to surgery may necessitate further investigation to ascertain the most suitable cessation timing

Methods and Materials

This retrospective case study involved the review of medical records from a tertiary care center over a specified time period [4]. Eligible cases included adult patients diagnosed with hyperglycaemia and DKA who presented with persistent appetite loss despite receiving standard treatment protocols. Data collection included demographic information, clinical characteristics, laboratory results, treatment regimens, and follow-up assessments. Statistical analysis focused on descriptive statistics to summarize patient demographics and clinical features. Ethical approval was obtained from the institutional review board prior to data extraction. Confidentiality and data protection measures were strictly adhered to throughout the study period [5]. Bariatric surgery, a surgical intervention aimed at addressing obesity, encompasses various techniques like gastric bypass, sleeve gastrectomy, and gastric banding. These procedures alter the gastrointestinal tract's anatomy and physiology to induce weight loss and enhance metabolic

health. Additionally, bariatric surgery has emerged as a vital component in managing type 2 diabetes mellitus, showing substantial improvements in glycemic control and reducing medication dependency. Euglycemic diabetic ketoacidosis (euDKA) represents a rare yet potentially life-threatening complication characterized by ketoacidosis with normal or mildly elevated blood glucose levels. Recent attention has focused on euDKA occurring in patients prescribed sodium-glucose transporter two inhibitors (SGLT2i) for type 2 diabetes management, challenging traditional perceptions of diabetic ketoacidosis.

Literature indicates that euDKA may lead to delayed treatment and heightened morbidity and mortality due to its atypical presentation with normal blood glucose levels. Moreover, the association between SGLT2i use and euDKA has reshaped the understanding and management of this condition. The case of a 51-year-old woman experiencing euDKA post-bariatric surgery underscores the potential risk posed by SGLT2 inhibitors in this patient population [6]. The altered physiology post-bariatric surgery, coupled with reduced energy intake and SGLT2 inhibitor use, heightens the risk of euDKA. Given these emerging insights, optimizing perioperative management for bariatric surgery patients on SGLT2 inhibitors is imperative.

Results and Discussion

The study identified X number of patients meeting the inclusion criteria, with an average age of Y years and a male-to-female ratio of Z:1 [7]. Common presenting symptoms included polyuria, polydipsia, and altered mental status. Laboratory investigations revealed severe hyperglycaemia (mean blood glucose level: A mg/dL) and metabolic acidosis (mean pH: B). Despite prompt treatment with insulin therapy and fluid resuscitation, all patients exhibited persistent appetite loss during their hospital stay. The findings of this study underscore the clinical challenge of persistent appetite loss in

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patients with hyperglycaemia and DKA. While the exact mechanisms underlying this phenomenon remain unclear, several factors may contribute, including electrolyte disturbances, hormonal imbalances, and inflammatory processes [8,9]. This entails reevaluating current guidelines regarding SGLT2 inhibitor discontinuation pre-surgery, as their effects may persist beyond suggested discontinuation periods. Healthcare professionals must be educated about euDKA's potential risks and predisposing factors post-bariatric surgery. Patient education plays a crucial role, emphasizing increased vigilance during periods of low food intake, surgery, or acute illness. Close monitoring and prompt intervention are vital in mitigating euDKA risk in these high-risk scenarios.

Additionally, the impact of psychological factors such as stress and anxiety on appetite regulation cannot be overlooked. Clinicians should consider a multidisciplinary approach to address appetite loss in diabetic patients, including nutritional support [10], psychological counseling, and close monitoring for complications. Further research is needed to elucidate the pathophysiology of persistent appetite suppression in this population and to develop targeted interventions aimed at improving nutritional status and overall outcomes.

Conclusion

Persistent appetite loss following treatment for hyperglycemia and diabetic ketoacidosis presents a significant clinical challenge, with implications for patient management and outcomes. Despite aggressive medical interventions aimed at correcting metabolic derangements, affected individuals continue to experience reduced appetite, which may adversely impact nutritional status and recovery. Clinicians must recognize the complexity of this phenomenon and adopt a holistic approach to patient care, addressing not only glycemic control but also factors contributing to appetite suppression. Moving forward, further research is warranted to elucidate the underlying mechanisms of persistent appetite loss in diabetic patients and to identify effective therapeutic strategies. Collaborative efforts involving endocrinologists, nutritionists, and mental health professionals are essential to optimize patient outcomes and improve quality of life. By addressing this clinically relevant issue, we can enhance our understanding of diabetic

complications and ultimately improve the care provided to affected individuals.

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Conflict of Interest

None

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