

Diabetic ketoacidosis: diagnosis and management.

Fasanmade OA, Odeniyi IA, Ogbera AO

Author information ▶

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Review

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Abstract

The objective of this manuscript is to review the clinical manifestations, diagnosis and management of diabetic ketoacidosis, one of the most common acute complications of diabetes mellitus. We performed a medline search of the English-language literature using a combination of words (diabetic ketoacidosis, hyperglycemic crises) to identify original studies, consensus statements and reviews on diabetic ketoacidosis published in the past 15 years. Emphasis was placed on clinical manifestations of diabetic ketoacidosis, its diagnosis and treatment. Diabetic ketoacidosis (DKA) is an acute complication of diabetes mellitus that can be life-threatening if not treated properly. Once thought to occur only in patients with type 1 diabetes, diabetic ketoacidosis has also been observed in patients with type 2 diabetes under certain conditions. The basic underlying mechanism for diabetic ketoacidosis is insulin deficiency coupled with elevated levels of counterregulatory hormones, such as glucagon, cortisol, catecholamines, and growth hormone. Diabetic ketoacidosis can be the initial presentation of diabetes mellitus or precipitated in known patients with diabetes mellitus by many factors, most commonly infection. The management of diabetic ketoacidosis involves careful clinical evaluation, correction of metabolic abnormalities, identification and treatment of precipitating and co-morbid conditions, appropriate long-term treatment of diabetes, and plans to prevent recurrence. Many cases of DKA can be prevented by better access to medical care, proper education, and effective communication with a health care provider during intercurrent illness. Provision of guidelines will also reduce mortality. Resources need to be redirected towards prevention by funding better access to care and educational programs.

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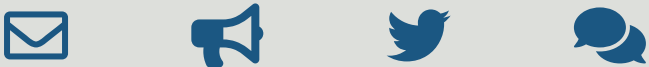
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