

EDUCATIONAL

## Acute Metabolic Complications of Diabetes in Emergency Department

Anita Sabzegahabaei<sup>1</sup>, Sahar Mirbaha<sup>2</sup>, Majid Shojaee<sup>2\*</sup>

1. Department of Emergency, Shohadaye Tajrish Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

2. Department of Emergency, Imam Hossein Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

\*Corresponding author: Majid Shojaee; Emergency Department, Imam Hossein Hospital, Shahid Madani Street, Tehran, Iran.

Tel: +989122167934 Email: majidshojaee87@yahoo.com

---

### Abstract

Diabetic ketoacidosis (DKA) and hyperosmolar hyperglycemic syndrome (HHS) are 2 acute metabolic crisis of uncontrolled diabetes mellitus. DKA usually occurs in patients with type 1 diabetes and HHS is seen mostly in those with type 2. In DKA, hyperglycemia, metabolic acidosis, and dehydration are the most prominent clinical symptoms and HHS is identified by hyperglycemia, severe dehydration without acidosis, and alterations in level of consciousness from sleepiness to confusion, seizure and coma. Treatment for both conditions is based on correction of dehydration and hyperglycemia, and establishing homeostasis of electrolytes. In the present review, we decided to present a comprehensive picture of the pathology and clinical manifestations, diagnosis and treatment of these 2 important conditions.

**Key words:** Glucose Metabolism Disorders; Diabetic Ketoacidosis; Hyperglycemic Hyperosmolar Nonketotic Coma; Emergency Treatment

---