

## DKA in a 12-Month-old Infant With New Onset Type I Diabetes Mellitus: a Case Report

Miranda Beran, Kirsten Smith, Kevan Stout\*

Faculty: Michelle Wallace

*Department of Physician Assistant, College of Health Professions*

**Introduction:** Type I diabetes mellitus (T1DM) has a bimodal peak in the onset of the disease. Most children are diagnosed between the ages of 4-6 and 10-14 years. It can be difficult to diagnose diabetes in children of a very young age, and it is often not high on the list of differential diagnoses for the provider. Without early recognition these children are at risk of developing diabetic ketoacidosis (DKA), a life threatening complication of T1DM. Children are not routinely screened for T1DM and it is more difficult to recognize the symptoms of DKA in a very young child, leaving this population vulnerable.

**Case description:** A 12-month-old female presented to the emergency department on the advice of a nearby immediate care facility for dehydration and presumed gastroenteritis. The child had been vomiting for several days with loose stools. Her oral intake had decreased over several days and on the day of the visit she had refused to take anything by mouth. The child became increasingly lethargic throughout the day. In the emergency department she was noted to have sunken eyes, dry mucous membranes, and had rapid, deep breathing. The child appeared drowsy, cried on initial exam and responded to pain. While in the emergency department the child's urine output was noted to be out of proportion to her hydration status. A bedside blood glucose meter was unable to evaluate the level and read "high". The presumptive diagnosis of diabetic ketoacidosis was made and intravenous rehydration was initiated. Laboratory results confirmed ketoacidosis and hyperglycemia.

**Discussion:** The diagnosis of DKA in a young patient requires a thorough history and physical exam as well as appropriate diagnostic tests. Among children with T1DM, DKA is a serious consequence and responsible for significant morbidity and mortality. The clinician should take into account family history of T1DM, socioeconomic status, lack of health insurance, and level of parental education. Early recognition of DKA would reduce morbidity, mortality and healthcare costs.