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## Abstract

Ketone bodies are important energy sources for the body and are produced by the liver when the body is in a deficiency state of glucose, which is used in the peripheral tissues to provide energy. There are several ketone bodies that are produced by the liver, of which two are important: acetoacetate and beta-hydroxybutyrate. Even though ketone bodies are always present in the body, they are minimal when a person is not fasting. Ketone bodies are produced by the oxidation of fatty acids to fulfill the metabolic needs of tissues, especially the brain. The biochemical reactions of forming ketone bodies are triggered by a lack of insulin and an elevated glucagon level in the blood. Both cause unopposed lipolysis and free fatty acid oxidation resulting in the production of ketone bodies and eventually high anion gap metabolic acidosis. We present a case of young healthy female who presented with euglycemic ketoacidosis after involving prolonged fasting for her religious ceremony. She also physically exerted quite more during her fasting. With a detailed history and excluding other possibilities, we made the diagnosis of starvation ketoacidosis. She improved well with the treatment and established her pre-morbid condition in our review.

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