

中文題目：糖尿病酮酸中毒併發可逆性後腦病變症候群

英文題目：Posterior Reversible Encephalopathy Syndrome following Diabetic Ketoacidosis

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Abstract

Posterior reversible encephalopathy syndrome (PRES) following diabetic ketoacidosis (DKA) is rare and commonly occurs in children. We encountered a case of a middle-aged woman who presented with DKA and seizure. Brain MRI showed typical brain edema in the bilateral occipital and parietal regions which indicated PRES. This is the first report of DKA-induced PRES in an adult. Physicians should consider this complication, which is treatable and may have a good prognosis.

PRES following DKA is a rare complication in adults. In previous reports, DKA-induced PRES commonly occurs in children.⁴⁻⁶ Our patient developed sudden seizures and visual loss with hallucination after admission and recovered soon after her blood sugar level and acidosis were corrected. Typical MRI changes in the brain in PRES comprise hyperintensity of the bilateral occipital and parietal cortices, which were observed in our case and treated on hospital day 13. The underlying pathogenesis of PRES is not fully understood; however, it is thought to result from endothelial dysfunction or damage caused by excessive circulating inflammatory cytokines.³ However, DKA-induced PRES remains unclear. The common causes of PRES are chronic renal failure, autoimmune disease, malignant hypertension, preeclampsia or eclampsia, and immunosuppressants. DKA may induce PRES through an increase in serum proinflammatory cytokines, such as interleukins and TNF α ,^{7,8} which activate endothelial cells to produce vasoactive factors and enhance vascular permeability to provide the pathophysiological environment for PRES. Brain edema in adult DKA usually has a poor outcome,^{2,9} and PRES with hyperglycemia has a worse outcome.¹⁰ However, after timely and adequate treatment of hyperglycemia and acidosis, our patient recovered shortly without residual sequel.

To the best of our knowledge, we report the first case of DKA-induced PRES in a middle-aged woman who showed typical symptoms and brain neuroimaging characteristics. Physicians should consider this complication of DKA, which is treatable and reveals an excellent outcome.

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