CALCIPHYLAXIS RESPONSIVE TO LANTHANUM CARBONATE (FOSRENOL) THERAPY

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Calciphylaxis is a rare and debilitating vasculopathy predominantly seen in patients with end-stage renal disease. What was once thought to be a passive deposition of calcium and phosphorus in blood vessels now clearly points to an active and tightly regulated cell-mediated process. Based on experimental studies elevated phosphorus levels may be the putative ion involved in the deleterious effects of the elevated calcium-phosphorus product and calciphylaxis.

We report a case of a 64-year-old male with cryptogenic cirrhosis and acute kidney injury requiring dialysis who had persistently elevated calcium-phosphorus product refractory to treatment. He was started on CVVHF due to anuric renal failure, shock, and volume overload. The patient eventually was extubated and weaned off vasopressors, and continued on intermittent hemodialysis. On hospital day #20 his calcium-phosphorus product was 73.1 mg^2/dL^2, and a necrotic eschar was noted bilaterally over his legs. A low dialysate calcium bath (1.25mEq/L) was initiated and dialysis time was increased from 3.5 to 4 hours and frequency from three to four times weekly. Despite this, calcium and phosphorus levels did not show improvement, and by hospital day 32 the calcium-phosphorus product had risen to 135.7 mg^2/dL^2 . Skin biopsy confirmed calciphylaxis. The patient however, responded rapidly to the initiation of lanthanum carbonate therapy and modified dialysis. During this time the patient's skin lesions dramatically improved with these measures and the pain completely dissipated.

Calciphylaxis has an approximately 1-4% prevalence rate in hemodialysis patients, with 1-year survival of 45% and an 8-fold risk of death as compared to the general dialysis population, with sepsis the major cause of death. Lanthanum carbonate (FOSRENOL) is a non-aluminum, non-calcium phosphate binder that was approved for use by the FDA in October, 2004 to reduce serum phosphate levels in patients with end-stage renal disease. This is the first case reported in the literature utilizing this new non-calcium based phosphate binder in the setting of acute kidney injury and calciphylaxis.