FATAL CALCIPHYLAXIS IN A HEMODIALYSIS DEPENDANT 51Y/O FEMALE WITH ESRD DUE TO DIABETIC NEPHROPATHY

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A 51 y/o morbidly obese female with multiple comorbidities including ESRD due to diabetic nephropathy, recently started on HD, was admitted to our hospital for skin ulceration and necrosis involving both the buttocks. She underwent biopsy of the lesions which confirmed the diagnosis of Calciphylaxis. The patient was started on bisphosphonates, underwent surgical debridement of a large necrotic area of about 20 cms x 8 cms, and was placed on broad spectrum antibiotics. The lesions continued to progress despite intermittent debridements. The wound increased in size to 40cms x 22cms and about 4 cms deep involving both the hips and buttocks. The hospital course complicated by low platelet counts probably secondary to alloimmunization vs. bone marrow suppression due to prolonged antibiotic therapy. Surgical debridement was held due to the thrombocytopenia and she received multiple HLA-matched platelet transfusions with improvement in platelet count. Pt became lethargic and hypotensive leading to ICU transfer with a diagnosis of pseudomonas sepsis. Pt's condition deteriorated and the family changed her code status to comfort measures only. She was transferred to regular floors and died on morphine drip.

Discussion: Calciphylaxis (Calcific Uremic Arteriolopathy) is a rare and life-threatening condition characterized by medial calcification of small and medium sized arteries in deep dermis and subcutaneous tissues causing cutaneous necrosis. This condition is seen in ESRD, Hemodialysis patients and renal transplant recipients. Pathophysiology is unclear but is frequently associated with hyperparathyroidism and elevated calcium-phospate product. The diagnosis is usually made by tissue biopsy, management is mainly supportive and end results are generally poor. Case reports suggest bisphosphonates, sodium thiosulfate, phosphate binders, hyperbaric oxygen therapy, pentoxyphylline, low calcium dialysis, maggot therapy and parathyroidectomy may play a role in treatment but prognosis is poor and mortality remains high.