

CALCIFIC UREMIC ARTERIOLOPATHY (CUA) SUCCESSFULLY TREATED WITH INTRAVENOUS SODIUM THIOSULPHATE

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A 45-year-old African American female with end stage renal disease on chronic peritoneal dialysis developed painful indurated plaques on her buttocks and breasts with subsequent ulceration. Skin biopsy revealed focal intralobular subcutaneous capillary microvascular thrombosis with focal acute inflammation, and rare subtle foci of staining with a von Kossa stain, suspicious for calciphylaxis. Laboratory data revealed a serum calcium and phosphorus product of 45 and a parathyroid hormone level of 581 pg/mL.

Despite treatment with cinacalcet and ongoing wound care her secondary hyperparathyroidism and wounds continued to worsen. A subtotal parathyroidectomy significantly improved her PTH levels (886 pg/mL to 107 pg/mL), but her wounds continued to progress and her clinical course was complicated by several episodes of hypocalcemia and bacterial superinfection requiring hospital admission for intravenous calcium and antibiotics. Treatment with intravenous sodium thiosulphate three times weekly was initiated with a dramatic response. Pain resolved after three to four days. Ulcers on the buttocks had healed completely after 6 weeks and those of the breasts were approximately 60% healed (figures).

CUA is a severe disease resulting in necrosis of the skin and subcutaneous tissue, leading to extensive wounds, severe pain and high mortality. This case highlights and expands on the mounting evidence of intravenous sodium thiosulphate as a successful treatment for calciphylaxis.