

It is calciphylaxis. (ref 1) (ref. 2) (ref. 3 = haunting images) (ref. 4 - see below: no attachment)

calciphylaxis is a dermatological condition that is uncommon but not rare and associated with diabetes, metabolic syndrome, dialysis, obesity, systemic corticosteroid use, and calcium-phosphate therapy.

it's possible that thiosulfate use may be helpful (ref. 5 - no attachment)

references:

1. mayo clinic  
see attached PDF labelled "image of month 0801 answer ref. 1.pdf"
2. emedicine  
see attached PDF labelled "image of month 0801 answer ref. 2.pdf"
3. kidney international  
see attached PDF labelled "image of month 0801 answer ref. 3.pdf"
4. Calciphylaxis: natural history, risk factor analysis, and outcome.

Weenig RH, Sewell LD, Davis MD, McCarthy JT, Pittelkow MR.

Department of Dermatology, Mayo Clinic, Rochester, MN 55905, USA.  
weenig.roger@mayo.edu

**BACKGROUND:** Calciphylaxis is characterized by ischemic cutaneous ulceration, high mortality, and ineffective treatment. **METHODS:** We conducted a retrospective study of 64 patients with calciphylaxis (including 49 dialysis patients age- and sex-matched to 98 dialysis controls). **RESULTS:** The estimated 1-year survival rate of calciphylaxis was 45.8%. Risk factors for calciphylaxis included obesity, liver disease, systemic corticosteroid use, calcium-phosphate product more than 70 mg(2)/dL(2), and serum aluminum greater than 25 ng/mL. Survival rates were similar for 16 patients who received parathyroidectomy and 47 who did not. An estimated 1-year survival rate of 61.6% was observed for 17 patients receiving surgical debridement compared with 27.4% for the 46 who did not ( $P = .008$ ). **LIMITATIONS:** The study was limited by its retrospective design and there was no control group for the 15 nondialysis cases. **CONCLUSIONS:** Calciphylaxis is multifactorial and usually fatal. Prevention of calciphylaxis may include correction of risk factors identified in this study. Surgical debridement was associated with improved survival, but parathyroidectomy was not.  
PMID: 17141359

5. Cardiovasc Diabetol. 2005 Mar 18;4(1):4.

Vascular ossification-calcification in metabolic syndrome, type 2 diabetes mellitus, chronic kidney disease, and calciphylaxis-calcific uremic arteriopathy: the emerging role of sodium thiosulfate.

Hayden MR, Tyagi SC, Kolb L, Sowers JR, Khanna R.

Department of Family and Community Medicine, University of Missouri Columbia, PO BOX 1140 Lk. Rd. 5-87, Camdenton, Missouri 65020, USA. mrh29@usmo.com

**BACKGROUND:** Vascular calcification is associated with metabolic syndrome, diabetes, hypertension, atherosclerosis, chronic kidney disease, and end stage renal disease. Each of the above contributes to an accelerated and premature demise primarily due to cardiovascular disease. The above conditions are associated with multiple metabolic toxicities resulting in an increase in reactive oxygen species to the arterial vessel wall, which results in a response to injury wound healing (remodeling). The endothelium seems to be at the very center of these disease processes, acting as the first line of defense against these multiple metabolic toxicities and the first to encounter their damaging effects to the arterial vessel wall. **RESULTS:** The pathobiomolecular mechanisms of vascular calcification are presented in order to provide the clinician-researcher a database of knowledge to assist in the clinical management of these high-risk patients and examine newer therapies. Calciphylaxis is associated with medial arteriolar vascular calcification and results in ischemic subcutaneous necrosis with vulnerable skin ulcerations and high mortality. Recently, this clinical syndrome (once thought to be rare) is presenting with increasing frequency. Consequently, newer therapeutic modalities need to be explored. Intravenous sodium thiosulfate is currently used as an antidote for the treatment of cyanide poisoning and prevention of toxicities of cisplatin cancer therapies. It is used as a food and medicinal preservative and topically used as an antifungal medication. **CONCLUSION:** A discussion of sodium thiosulfate's dual role as a potent antioxidant and chelator of calcium is presented in order to better understand its role as an emerging novel therapy for the clinical syndrome of calciphylaxis and its complications. PMID: 15777477