A 65 year-old female with hypertension, type 2 diabetes, and end stage renal disease on hemodialysis, presented with bilateral wet and dry gangrene. The patient had distal arterial Doppler signals, but no palpable pulses. A CT Angiogram of the lower extremities was performed. In addition to infrageniculate arterial stenoses, the CTA revealed extensive subcutaneous calcifications (Figures 1 and 2). Physical examination by the radiologist at the time of the CTA revealed diffuse, subtly palpable and firm subcutaneous nodules.

The differential diagnosis for such findings is extensive. Calciphylaxis is the deposition of calcium and phosphorus in the wall of small blood vessels secondary to end stage renal disease, which results in thrombosis, skin necrosis and ulceration. Fat necrosis or saponification causes subcutaneous masses on physical exam which are usually localized to sites of idiopathic trauma, such as injection sites.\(^1\) Calcinosi cutis is associated with connective tissue disorders, such as CREST syndrome, dermatomyositis, Ehlers-Danlos, and systemic lupus erythematosus.\(^2\) Metastatic calcinosi cutis is secondary to dystrophic calcification or calcium deposition in the skin around large joints and is associated with malignancy.\(^3\)

Our patient had no history to support any of these possibilities. She did have chronic venous insufficiency\(^4,^4\) with extensive venous varicosities. Calcinosi cutis is secondary to extensive thrombosis within these venous structures with phleboliths was considered, but most of the calcification was outside of the veins. Finally, tumoral calcinosi secondary to chronic renal failure results from elevated levels of phosphorus and calcium, which is often clinically visible. While our patient’s levels of phosphorus and calcium at the time of CTA were normal, she had a history of secondary hyperparathyroidism from her renal failure. This was felt to be the most likely cause of the impressive, but incidental findings on her CTA and no further treatment was necessary.

REFERENCES


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Disclosure of Financial Interest
The authors and/or their spouses/significant others have no financial interests to disclose.

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