

# Calciophylaxis Due to Alcoholic Liver Disease

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## Introduction

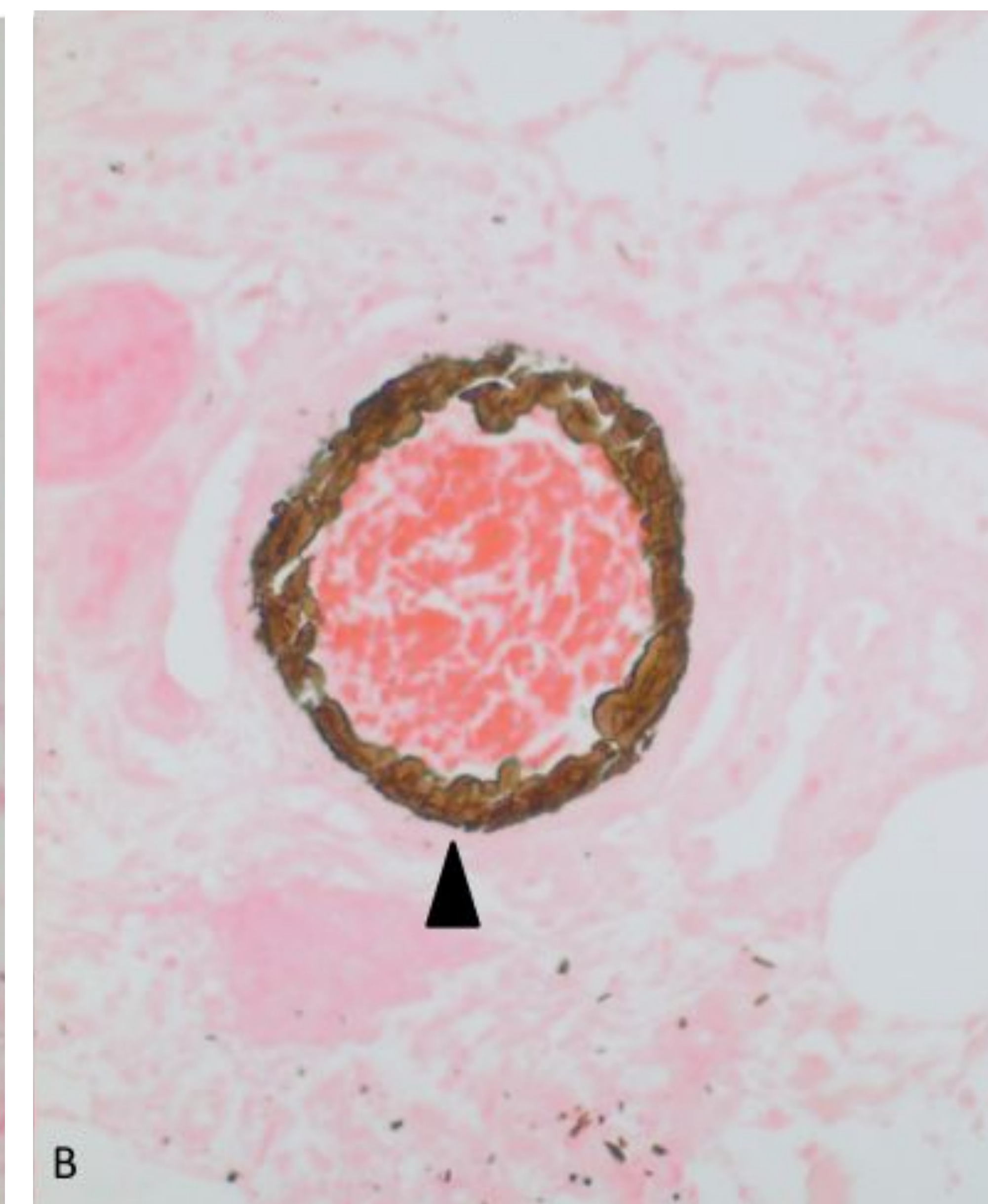
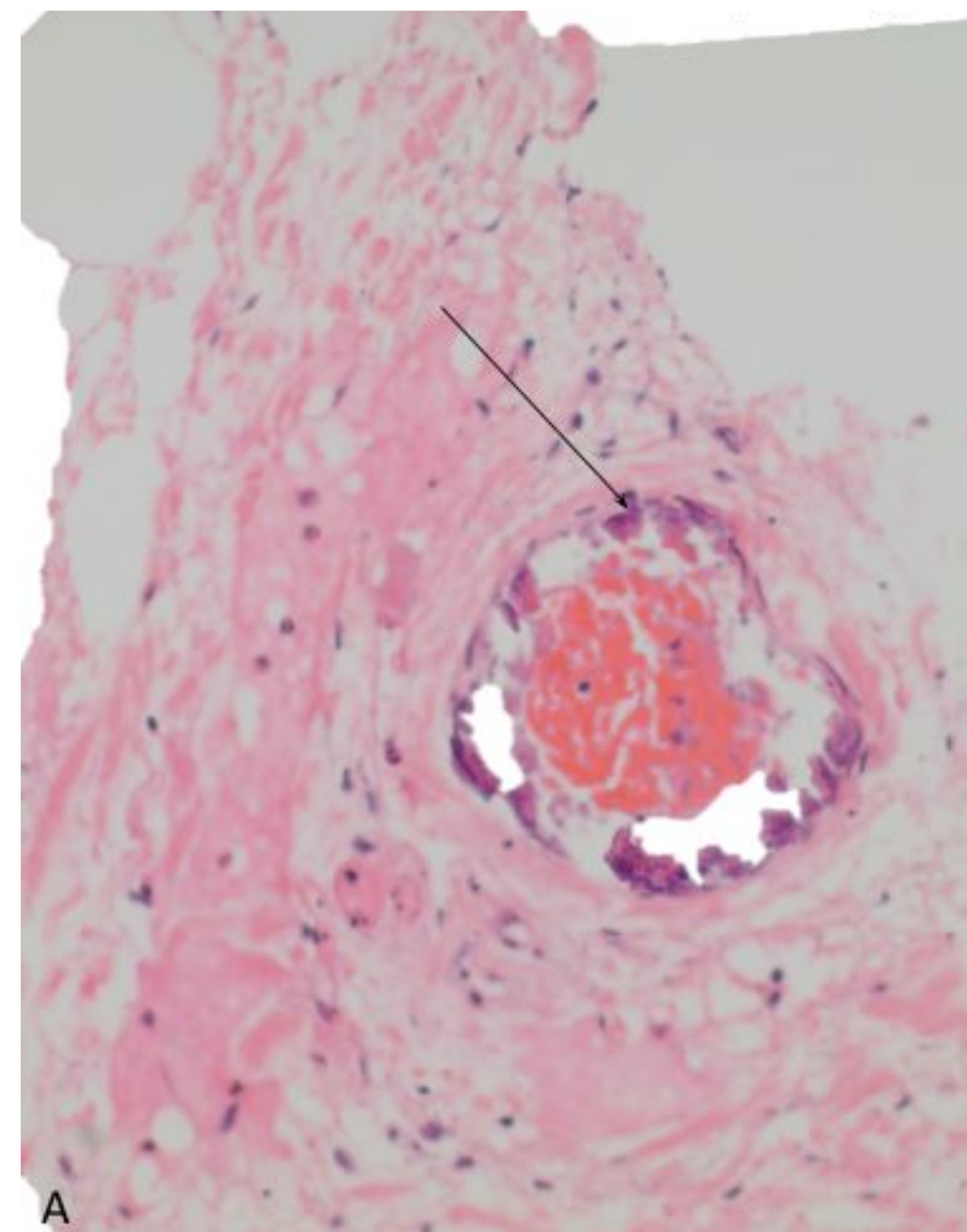
Advanced liver disease often has multiorgan involvement, including dermatological findings. These range from spider angiomas to palmar erythema. Here we present a case of calciophylaxis as a manifestation of decompensated alcoholic liver disease.

## Case Description

A 38 year-old female with decompensated alcoholic cirrhosis (portal vein thrombosis, ascites, hepatic encephalopathy, and hepatic hydrothorax) reported to the emergency room complaining of new right thigh wounds. Her vital signs were unremarkable and her exam demonstrated ascites and bilateral lower extremity edema with right medial thigh erythema, induration, and superficial ulceration (Figure 1). Labs showed sodium 125 mEq/L, Creatinine 0.95 mg/dL, WBC  $16.2 \times 10^9$ , and total bilirubin 1.6 mg/dL. CT of her thigh demonstrated bilateral, symmetric subcutaneous induration consistent with anasarca and possible superimposed cellulitis. She was admitted and treated with IV antibiotics. As the lesions became dusky and more painful dermatology was consulted who initially were concerned for a vasculopathic process versus calciophylaxis. The patient was placed on empiric treatment for calciophylaxis with sodium thiosulfate. Skin biopsies were performed and showed non-uremic calciophylaxis (Figure 3). The patient then developed an AKI thought to be from hepato-renal syndrome and was trialed on albumin, midodrine, and octreotide with no improvement in renal function. She then developed acidosis, eventually requiring a bicarb drip, and her wounds continued to progress (Figure 2). When she started becoming repeatedly hypotensive her family transitioned her to comfort care and she was discharged to hospice.



Right medial thigh wound on presentation (above) and later in hospital course (below)



A: High power of calcium deposits and thrombus (arrow) within the subcutaneous fat  
B: Corresponding von kossa stain (arrowhead)

## Discussion

Calciophylaxis is a rare disease that was first described in 1961 by Selye et al and is largely thought to be related to uremia. Here we describe a case of calciophylaxis in a patient with alcoholic liver disease and initial normal renal function. Our review of the literature found fewer than 11 case reports of calciophylaxis associated with liver disease. The mechanism in these cases appears to be poorly understood though is believed to be connected to protein C and protein S deficiency. As in those with advanced renal disease, calciophylaxis has a poor prognosis with high mortality often reported as greater than 50% even despite treatment. Thus it is important that clinicians recognize its association with alcoholic liver disease to aid in diagnosis and ensure prompt initiation of treatment.