NOTES & COMMENTS

Sodium thiosulfate in calciphylaxis: Make a long story short

To the Editor: We read with great interest the reported case of calciphylaxis-associated pancreatitis in a hemodialysis patient by Flynn et al.[1] Although the authors describe precisely for the first time the clinical course, imaging, and histopathologic findings of a patient who had relapsing pancreatitis without a definitive cause until the appearance of cutaneous calciphylaxis, their findings need to be carefully evaluated, taking into consideration the following issues.

First, we consider of paramount importance the report of an uncommon presentation of systemic calciphylaxis involving the pancreas and the subcutaneous small vessels confirmed by deep skin biopsy. This temporal association could be attributable to pancreatic fat necrosis, also known as enzymatic panniculitis.[2] However, the presence of extensive mural calcifications of small blood vessels with no evidence of vasculitis excluded the above diagnosis.

Secondly, the authors should mention more analytically the laboratory findings in the context of the differential diagnosis, as the coexistence of these clinical manifestations might be the result of various morbid entities such as cholesterol embolization syndrome or IgG4-related disease.

Nevertheless, it seems reasonable that in light of concrete histopathologic findings, treatment with sodium thiosulfate was commenced.[3] It is also noteworthy that the symptoms returned during the period of dose reduction, and the patient improved when the initial dose of sodium thiosulfate was readministered. As a result, the diagnosis was benefit aided, as other potential causes were excluded.

Likewise, we report a case of a hemodialysis patient who suffered from recurrent pancreatitis and severe skin ulcerations of the right lower extremity that resolved soon after the administration of sodium thiosulfate at a dose of 15 g 3 times per week (Fig 1). In support of the authors' pathophysiological hypothesis, we also mention that other underlying causes of recurrent pancreatitis were not identified from clinical history, physical examination, laboratory investigations, and computed tomography imaging. Furthermore, the diagnosis of calciphylaxis in our case was based on the findings of technetium (Tc)-99m bone scintigraphy apart from clinical evaluation (Fig 1). Tc-99m bone scintigraphy has been recently reported by Paul et al[4] as a highly sensitive and specific alternative for the diagnosis of calciphylaxis, when multiple deep tissue biopsies are considered possible to propagate new lesions formation.

Several factors should be taken into account to establish a clear connection between calciphylaxis and involvement of internal organs. Especially in the setting of end-stage renal disease, a complex pathophysiologic interplay needs to be further investigated in well-designed clinical studies with robust noninvasive markers. Until then, we can only rely on clinical findings, recognition of predisposing factors, tissue biopsies and Tc-99m bone scintigraphy findings to diagnose systemic calciphylaxis.[5]

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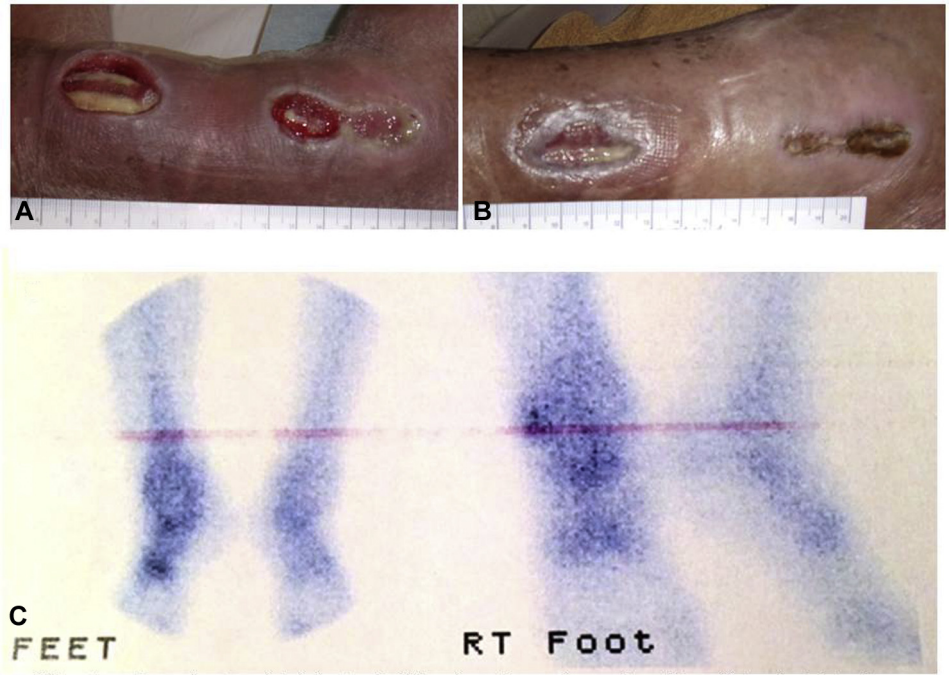

Fig 1. Calciphylaxis of right lower extremity. A, Skin ulcerations from calciphylaxis. B, Skin ulcerations after sodium thiosulfate administration. C, Tc-99m bone scintigraphy at the time of diagnosis.