

SKIN MANIFESTATIONS OF INTERNAL DISEASE

## CUTANEOUS VASCULAR CALCIFICATION. A CLINICAL AND PATHOLOGICAL STUDY.

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**Introduction:** There is controversy in the literature regarding the definition of Calciphylaxis as a nosological entity.

**Objectives:** To study associated diseases and clinical-histopathological manifestations of patients with Cutaneous Vascular Calcification (CVC).

**Material and Methods:** Retrospective study of 66 patients with CVC (histological presence of calcium deposits in the vascular wall of cutaneous vessels). Patients were subdivided into Classical Calciphylaxis (CC; according to clinical presentation as erythematous-violaceous plaques with / without ulceration) (n = 34), and CVC as an Epiphenomenon (cutaneous lesions with a known clinical-pathological diagnosis) (n = 32). A wide range of clinical, histological and complementary tests were evaluated.

**Results:** In the CC Group, a higher percentage of renal failure history, hemodialysis, arterial hypertension, painful lesions with worse evolution, higher rate of short-term exitus, and analytical alterations of renal function and phospho-calcium metabolism were observed (p <0.05). Histologically, in the CC Group, a higher number of calcified vessels per field, a concentric calcification disposition, a higher presence of dermal necrosis, vascular hyalinosis and neutrophilic inflammatory infiltrate were found (p <0.05). Periecrine calcifications were observed exclusively in the CC Group (p 0.04). Elastic pseudoxanthoma-like changes were present mostly, but not exclusively, in the CC Group.

**Conclusions:** 1) Clinical-pathological differences allow to distinguish two main groups of patients with CVC: Calciphylaxis- and Epiphenomenon-type; 2) The presence of periecrine calcification might be used as a Calciphylaxis-type marker; 3) The mechanism by which the CVC is produced is probably multifactorial, being able to participate the renal failure (due to an alteration in the phospho-calcium metabolism) and different cutaneous diseases at a local level, playing also an essential role a previous substrate of alteration in the microcirculation (arterial hypertension, atherosclerosis ...).