Reviewer's report

**Title:** Calciphylaxis in Chronic, Non-Dialysis-Dependent Renal Disease

**Authors:**

Dr Rainer U Pliquett (rpliquett@endothel.de)
Jorg Schwock (schjo@medizin.uni-leipzig.de)
Ralf Paschke (pasr@medizin.uni-leipzig.de)
Harald Achenbach (achh@medizin.uni-leipzig.de)

**Version:** 1  **Date:** 18 Jul 2003

**Reviewer:** Rajnish Mehrotra

**Level of interest:** A paper of limited interest

**Advice on publication:** Reject

Pliquett et al present a case report of calciphylaxis in a patient with chronic, non-dialysis dependent renal disease. With respect to the data presented, I have the following comments to make:

1. The finding of calciphylaxis in patients with chronic renal failure but not undergoing dialysis therapy is not new. It has been described in patients who have not reached end-stage renal disease as well as in patients following successful renal transplantation. This issue is adequately addressed in a recent review of the issue by Wilmer et al (Semin Dialysis 2002; 172-186).

2. The presence of medial calcification is not sufficient for the diagnosis of calciphylaxis. The intimal proliferation/fibrosis leading to luminal occlusion is a key component as well. The histologic picture presented by the authors may be consistent with but does not appear to be diagnostic of the process.

3. Specific comments with respect to the case report:
   a). It is important to give some idea regarding the degree of renal dysfunction. To attribute mid-stage rather than end-stage is not appropriate. May I suggest that the authors use the MDRD equation to estimate GFR for the patient and assign a stage of chronic kidney disease. This would provide a reasonable idea of the level of renal function.
   b). How was the diagnosis of the presence of peripheral vascular disease made in the patient? Were any measurements of ankle-brachial indices made?
   c). The normal range of PTH measurements in the laboratory used by the authors needs to be provided.
   d). The serum levels of vitamin D are inordinately low - far lower than what are typically seen in patients with renal failure. No discussion of the etiologic basis of this vitamin D deficiency is made? It is particularly intriguing in light of normal PTH levels and high serum calcium levels. Did the patient have elevated PTH-related peptide levels?
   e) Only 1-2 pictures of the skin ulceration are probably necessary to document the point the authors seek to make. May I suggest that Figures 3 and 4 are most relevant.
4. May I suggest changes in the terminology used by the authors: Medial calcification is often called "arteriosclerosis" (of the Monckenberg's type) as distinct from atherosclerosis (which is an intimal disease). Most investigators would suggest that the medial calcification seen in patients with calciphylaxis is distinct from that seen in Monckenberg's sclerosis.

Intra-corporal should be intra-corporeal

**Competing interests:**

None declared.