

Images in clinical rheumatology

## Calcinosis cutis in a patient with systemic lupus erythematosus

Calcinosis cutis en una paciente con lupus eritematoso sistémico

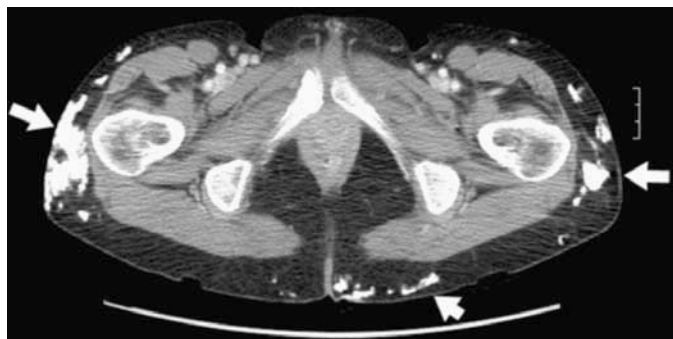
Eva Pérez Pampín,<sup>a,\*</sup> Joaquín Campos Franco,<sup>b</sup> Jorge Blanco Rodríguez,<sup>a</sup> and Antonio Mera Varela<sup>a</sup>

<sup>a</sup>Servicio de Reumatología, Hospital Clínico Universitario, Santiago de Compostela, Spain

<sup>b</sup>Servicio de Medicina Interna, Hospital Clínico Universitario, Santiago de Compostela, Spain

### Clinical case

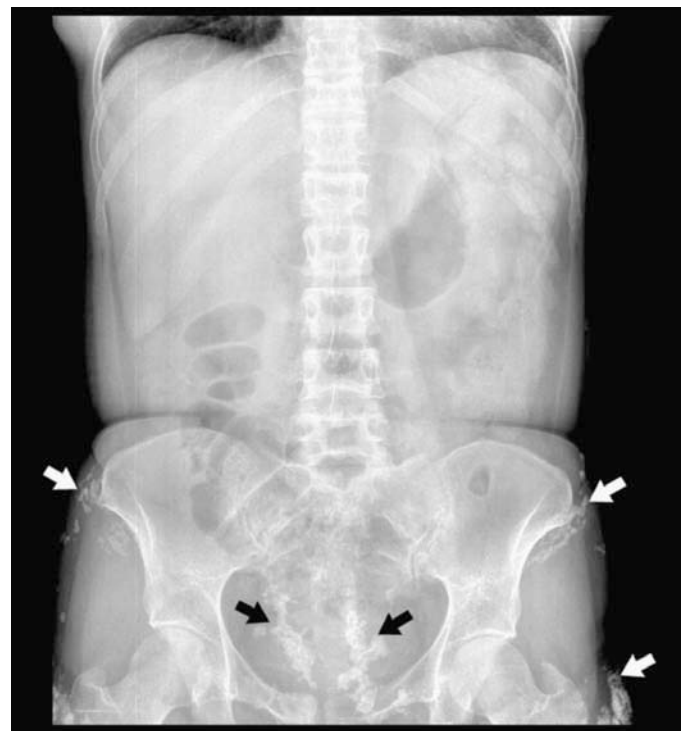
We present the case of a 36 year old woman with systemic lupus erythematosus with hematological, skin and joint affection, with an onset 21 years prior. The immunologic study showed positive ANA (titer 1:1,000, homogeneous pattern), anti-DNA, anti-ENA and anti-Ro (SSA). She presented multiple hard subcutaneous nodules on the trunk and extremities since 10 years prior, which tended to conglomerate at the buttocks, hips and thighs forming extensive plaques. Throughout the last year she has presented a progressively larger ulcer with a serous exudate over the lesions of the right thigh. Cultures were positive for *Staphylococcus aureus*. A simple abdomen x-ray (Figure 1) and a tomography (Figure 2) revealed multiple and extensive subcutaneous calcifications (arrows). In spite of treatment with diltiazem, calcifications persist and the ulcer progressed rapidly.



**Figure 1.** Abdominal tomography; axial cut of the pelvic floor.

### Diagnosis: calcinosis cutis

“Calcinosis cutis” is characterized by the deposit of calcium salts (hydroxyapatite or calcium phosphate) in the skin and subcutaneous tissue.<sup>1,2</sup> There are four forms: dystrophic, metastatic, iatrogenous



**Figure 2.** Simple abdominal x-ray.

\* Corresponding author.

E-mail address: [evappampin@gmail.com](mailto:evappampin@gmail.com) (E. Pérez Pampín).

and idiopathic.<sup>1,2</sup> Dystrophic calcinosis, which includes those cases secondary to autoimmune disease, is characterized by the deposit of calcium salts in a previously damaged tissue, with no abnormalities in calcium or phosphorous metabolism. Metastatic calcinosis affects healthy tissue and results from an alteration of calcium and phosphorous metabolism. Iatrogenous calcinosis appears as a consequence of an invasive procedure. The association between “calcinosis cutis” and systemic lupus erythematosus is relatively infrequent, affecting patients with severe and long-standing forms, predominantly affecting the extremities and buttocks.<sup>1-5</sup> Ulceration of the lesions and superinfection is frequent; occasionally, calcareous material may be expelled.<sup>2</sup> Different treatments have been employed (calcium antagonists, biphosphonates, aluminum hydroxide, warfarine, intralesional injection of steroids, among others) with variable results.<sup>1-6</sup> Surgical treatment is indicated only in selected cases.<sup>7</sup>

## References

1. Boulman N, Slobodin G, Rozenbaum M, Rosner I. Calcinosis in rheumatic diseases. *Semin Arthritis Rheum.* 2005;34:805-12.
2. Tristano AG, Villarroel JL, Rodríguez MA, Millan A. Calcinosis cutis universalis in a patient with systemic lupus erythematosus. *Clin Rheumatol.* 2006;25:70-4.
3. Rothe MJ, Grant-Kels JM, Rothfield NF. Extensive calcinosis cutis with systemic lupus erythematosus. *Arch Dermatol.* 1990;126:1060-3.
4. Weinberger A, Kaplan JG, Myers AR. Extensive soft tissue calcification (calcinosis universalis) in systemic lupus erythematosus. *Ann Rheum Dis.* 1979;38:384-6.
5. Park YM, Lee SJ, Kang H, Cho SH. Large subcutaneous calcification in systemic lupus erythematosus: treatment with oral aluminum hydroxide administration followed by surgical excision. *J Korean Med Sci.* 1999;14:589-92.
6. Palmieri GM, Sebes JI, Aelion JA, Moinuddin M, Ray MW, Wood GC, et al. Treatment of calcinosis with diltiazem. *Arthritis Rheum.* 1995;38:1646-54.
7. Cousins MA, Jones DB, Whyte MP, Monafó WW. Surgical management of calcinosis cutis universalis in systemic lupus erythematosus. *Arthritis Rheum.* 1997;40:570-2.