

Cocaine-induced periostitis and vasculopathy

A 46-year-old male patient with ongoing history of cocaine abuse presented with bilateral pain in the anterior thigh. The patient's skin, spine and joints were normal. The muscles of the thigh displayed normal force and no tenderness on palpation. Blood work showed elevated ESR (46 mm/h), CRP [168 mg/l (normal <5 mg/l)], and creatine phosphokinase [352 U/l (normal <190 U/l)]. Leucocytes and granulocytes were slightly elevated. Urinalysis showed a non-glomerular microhaematuria (Fig. 1).

The MRI of both thighs detected a circular bilateral periostitis. The visceral angiogram showed a vasculopathy of the small and very small vessels of the spleen and liver and bilateral partial kidney infarction. There were no microaneurysms. Chest radiographs and echocardiography were normal and ANCA was negative. We made the diagnosis of cocaine-induced periostitis and small-vessel vasculopathy and the patient was started on oral corticosteroids (50 mg/day) and acetic acid 100 mg/day, which led to rapid improvement.

Cocaine is well known to be able to induce vasculitic reactions, resembling idiopathic granulomatosis with polyangiitis, sometimes including positive ANCA. In contrast, a non-inflammatory syndrome with vasoconstriction, arterial stenoses and aneurysms is also known [1].

The periostitis in our patient may be a sign of cocaine-induced vasculitis, as periostitis has been described rarely

in other systemic vasculitides [2]. However, it may also be the result of exposure to the cocaine adulterant levamisole, as we know about the possible occurrence of periostitis with prolonged antifungal treatment with voriconazole (an imidazole like levamisole).

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Ralph Melzer¹ and Lukas Schmid¹

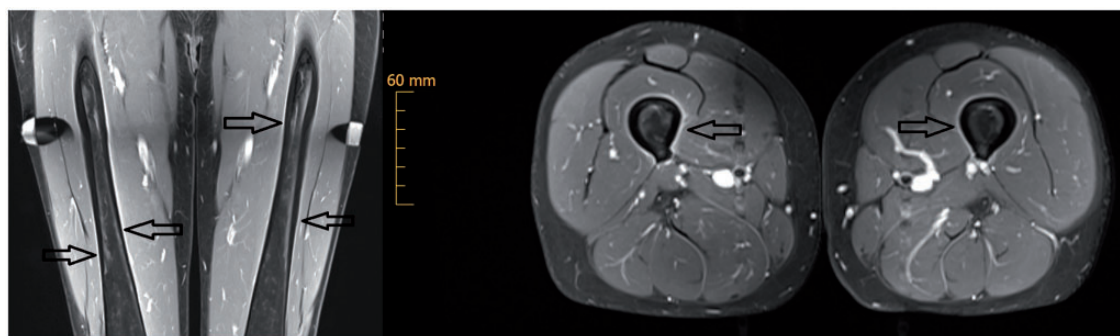
¹Rheumatology, Luzerner Kantonsspital, Lucerne, Switzerland

Correspondence to: Ralph Melzer, Rheumatology, Luzerner Kantonsspital, Spitalstrasse, 6000 Lucerne, Switzerland.
E-mail: ralph.melzer@luks.ch

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FIG. 1 Gadolinium-enhanced, T1-weighted, fat-saturated MRI



Bilateral circumferential periostitis (arrows) of the femoral diaphysis in the transverse and frontal planes.