Lucio Phenomenon presenting with nasal myiasis, epistaxis and painless leg ulcers

Introduction

Lucio phenomenon is an uncommon presentation of leprosy. It is rarely reported outside Mexico and Puerto Rico. However recently it was described in Singapore\(^1\) and Malaysia\(^2\). We described a case of lucio phenomenon presenting with nasal myiasis and painless leg ulcers.

Case report

A 58 years old Kadazan man from the interior of Sabah was referred to Dermatology for recurrent painless ulcers at the lower limbs for 2 years. He presented to the ENT department for epistaxis and nasal myiasis for 1 week and was initially suspected to have sinonasal carcinoma. On examination, he had a shiny, myxedematous face with diffuse infiltration of eyebrow and earlobes (Fig 1). He was afebrile. There were multiple stellate shape deep necrotic ulcers on the shins (Fig 2). There was reduced sensation in stocking distribution up to knee. Blood investigations revealed wbc 7.5 x 10\(^9\)/L, microcytic hypochromic anemia with hemoglobin of 10.7g/dL, platelet 361x10\(^9\)/L. He has mild acute kidney injury with creatinine of 131µmol/L. Nasal endoscopy done revealed eroded Rt nasal turbinette with overlying necrotic tissue and perforated nasal septum with maggots seen (Fig 4).

He was started on iv Augmentin (amoxycylin and clavulanic acid) and developed multiple purpuric necrosis with blisters on the earlobe, dorsum of the hands and knees 2 days later (Fig 2, 3). Slit skin smear done showed BI 4.5 and MI 8.0. He was started on multidrug therapy (MDT) as well as prednisolone 40mg od. Skin biopsy done on the edge of the ulcer showed leucocytoclastic vasculitis and endothelial proliferation leading to luminal obliteration with acid fast bacilli seen within the vessel walls (Fig 5). Mycobacterium lepra PCR was detected.

His ulcers improved after one month of MDT and daily superoxidized solution dressing. His prednisolone was then tapered off over the following month. He was last reviewed while he was on the 9th month of MDT (Fig 6).

Discussion

The hallmark of lucio phenomenon is painful stellate shaped necrosis or purpura with predilection for lower limbs, upper limbs and rarely the face. Patients usually present with concomitant fever. Our patient had leg ulcers for 2 years which did not bother him as they were painless. However it was nasal myiasis and epistaxis which brought him to medical attention. The development of new stellate shaped necrosis in the ward together with the classical appearance of shiny induration of his face provided further clues to the diagnosis.

Epistaxis is an uncommon first indication of leprosy as the result of nasal blockage, ulceration and septal perforation\(^3\). Patients with a more advanced disease may develop anosmia or hyponosmia due to narrowing of airway with infiltration and crusting or involvement of olfactory nerves. Nasal myiasis occurs in patients with tissue destruction. Left untreated, nasal and palatal fistula may ensue which can potentially lead to carvenous sinus thrombosis\(^4\).

Lucio phenomenon is potentially fatal due to rapid progression with secondary bacterial infection and sepsis. Hence awareness of this entity by the front line clinicians is prudent.

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References