Clinical Rheumatology (2023) 42:1487–1489
https://doi.org/10.1007/s10067-023-06544-5

CLINICAL IMAGE

A destructive nasal skin lesion caused by fungal infection in a systemic lupus erythematosus patient

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Received: 18 November 2022 / Revised: 7 February 2023 / Accepted: 8 February 2023 / Published online: 17 February 2023

Presentation

We report a female patient, 58 years old, smoker, with a previous history of systemic lupus erythematosus for 16 years, using hydroxychloroquine and prednisone (dose ranging from 20 to 60 mg/day on a self-medication basis) without medical follow-up over the last 2 years. The patient, at her first visit, had a 3-month history of an ulcerated, verrucous, and progressive destructive lesion at the tip, dorsum, and wings of the nose (Fig. 1A), associated with episodes of low-grade fever and local bleeding. There were no regional lymphadenopathies or satellite skin lesions. Computed tomography revealed a preserved nasal septum (Fig. 1B), paranasal sinuses with intact bone walls, and normal nasal turbinates. A nasofibrolaryngoscopy reported normal-looking nasal mucosa and fibrin in the right nasal vestibule, next to the skin area; cavum and further aspects of the upper respiratory tract presented no abnormalities. Skin biopsy showed chronic granulomatous inflammation with necrosis (Fig. 2), but negative staining for fungi. Direct mycological examination of the sample was negative, but the culture was positive for *Sporothrix schenckii*. After 3 months of treatment with itraconazole 200 mg daily, a significant improvement of the lesion was observed (Fig. 1C), but important residual deformity remained. The aspect of the lesion at the end of treatment (6 months) is shown in Fig. 3.

Discussion

Sporotrichosis is a subacute to chronic infection caused by dimorphic fungi of the genus Sporothrix. It is a condition found worldwide, with the majority of cases being reported in tropical countries. The most common cause of infection in humans is the species *Sporothrix schenckii*. The incubation period can take days to months after exposure. The infection can be classified into different clinical forms, including cutaneous, pulmonary, and disseminated. The cutaneous form of the disease develops after inoculation of the fungus, commonly in activities involving contact with the soil (gardeners and farmers) or contaminated cats [1]. The differential diagnoses include mycobacteria, Nocardia, and Leishmania infections; other fungal infections (paracoccidioidomycosis and chromoblastomycosis); sarcoidosis [1]; primary nasal lymphoma [2]; and especially in the present case, chronic (discoid or verrucous) cutaneous lupus erythematosus [3, 4]. Immunosuppressed patients are particularly susceptible to severe forms of sporotrichosis [1].

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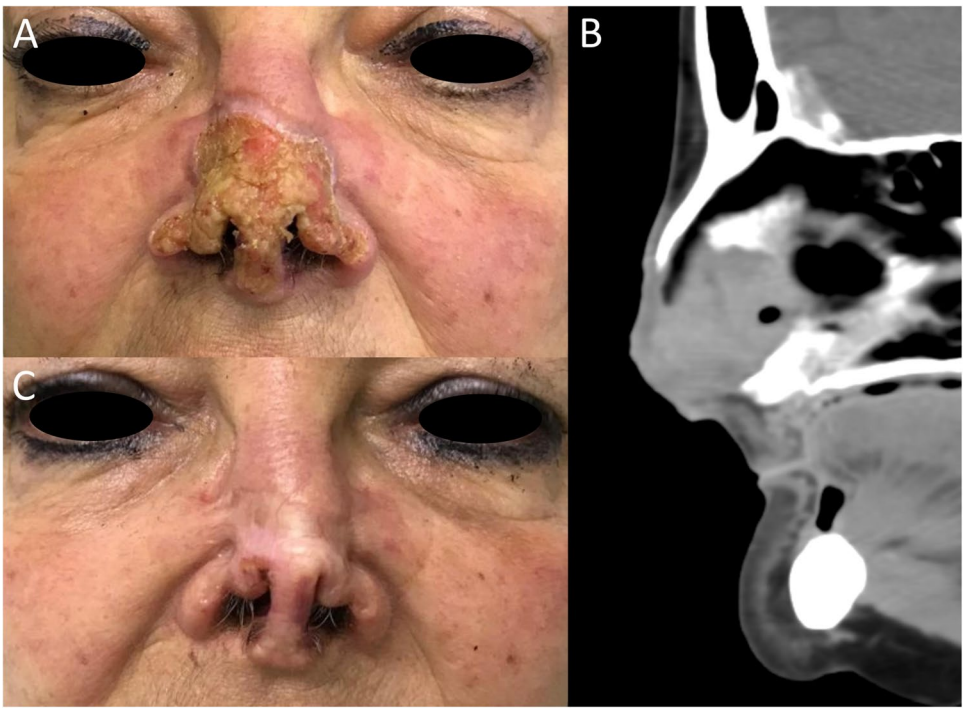

Fig. 1 **A** A destructive lesion with a verrucous and ulcerated surface covering most of the skin on the nose of a patient with systemic lupus erythematosus on prolonged treatment with prednisone 20–60 mg/day on a self-medication basis. A bilateral malar rash can also be seen in the image. **B** Sagittal computed tomography slice at the level of the nasal septum demonstrating destruction of the tip of the nose and part of the nasal dorsum. **C** Aspect of the lesion after 3 months of treatment with itraconazole 200 mg/day, presenting significant residual deformity

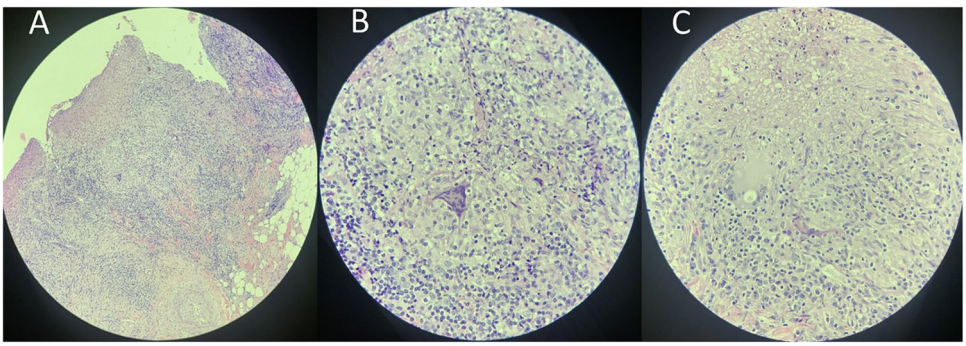

Fig. 2 Microscopic view of the biopsy specimens obtained from tip and wing of the nose. **A** Hematoxylin–eosin (HE), 100×magnification: Chronic granulomatous inflammation in ulcerated skin. **B** HE, 400×magnification: Granulomas with a multinucleate giant cell. **C** HE, 400×magnification: Granuloma with a multinucleate giant cell and necrosis. Photo courtesy of Dr. Mateus Ceolin Vione

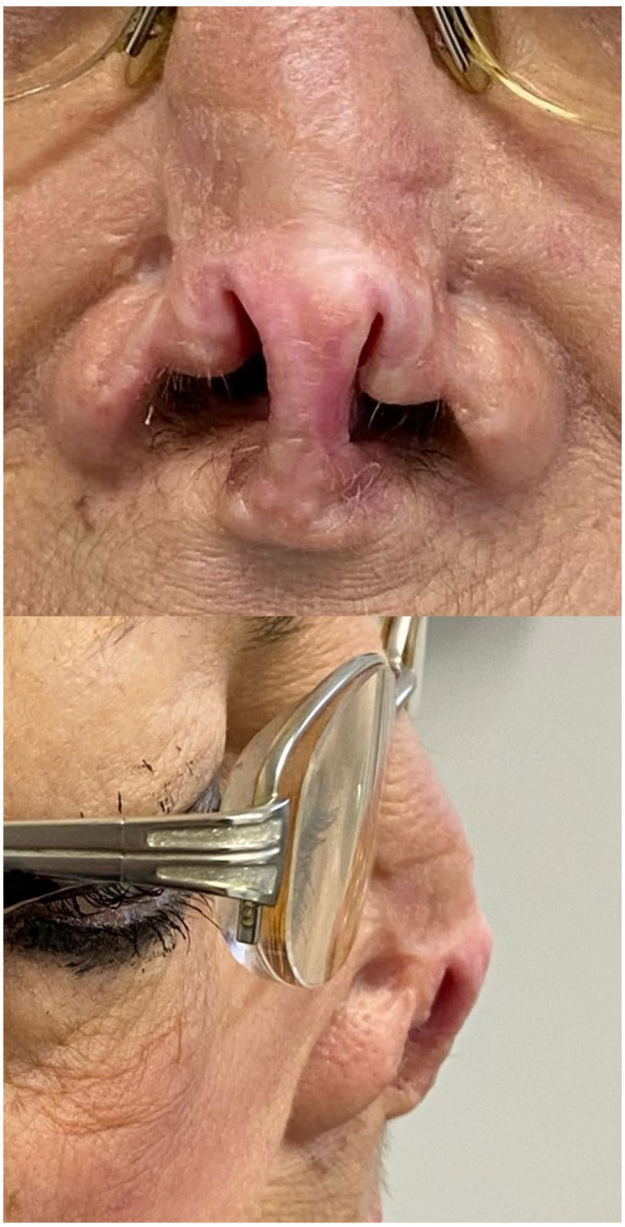

Fig. 3 Front (upper part of the photo) and lateral view (lower part) of the nose after 6 months of treatment with itraconazole 200 mg/day

Compliance with ethical standards

Patient consentment The patient expressly consented for the publication of this case study as well as all clinical images contained in it. Details that might disclose the identity of the patient were purposely omitted.

Disclosures None.

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