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INTERESTING MEDICAL IMAGE

# Long-Standing Lymphocutaneous Sporotrichosis

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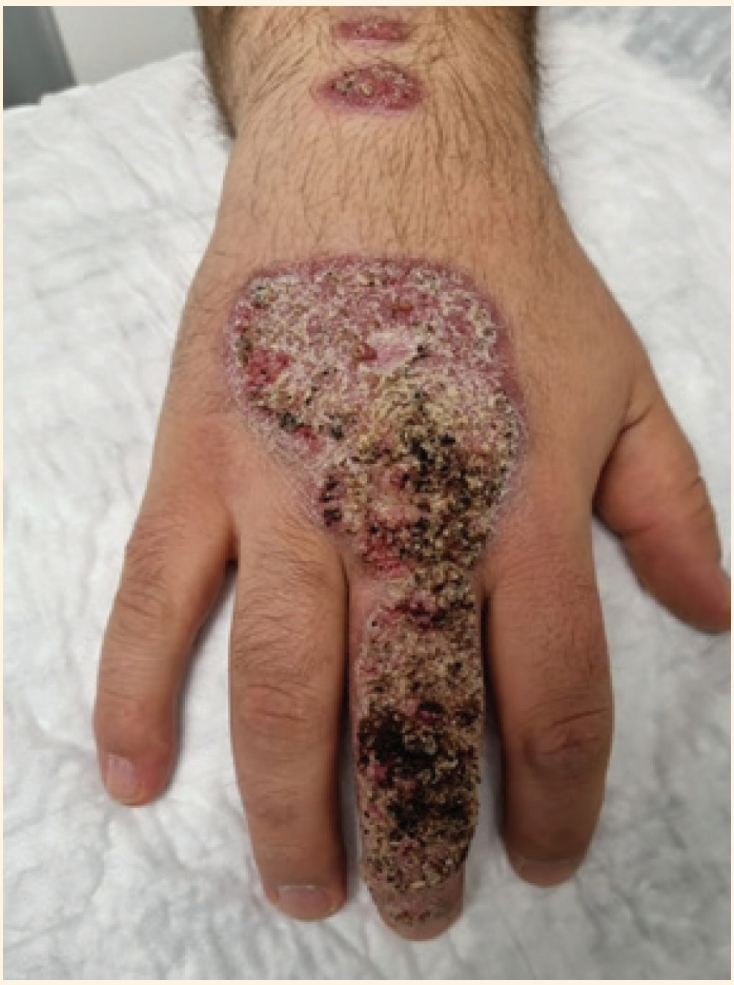

**Figure 1:** Verrucous plaque on the back of the right hand of a 36-year-old male farmer involving the entire dorsal aspect of the third finger with two satellite lesions on the arm in a linear arrangement.

A 36-year-old male farmer with no relevant personal or family medical history presented to a dermatology outpatient clinic in Granada, Spain in 2021 complaining of a warty plaque on the back of his right hand that involved the entire dorsal aspect of the third finger and two satellite lesions on his arm in a linear arrangement [Figure1]. No locoregional adenopathies were noted. The patient recalled a previous traumatic history while performing his work 10 months earlier. Two weeks later, the lesions began to develop until they reached the aforementioned state at the time of presentation.

The laboratory examinations included a blood sample test (haemogram and basic coagulation) and obtaining reports of general biochemistry (lipid profile, hepatic and renal function), autoimmunity (autoantibodies, immunoglobulins, complements) and thyrotropin. A thoracoabdominal computed tomography scan was requested to evaluate systemic dissemination with normality of all the tests mentioned. No skin biopsy was performed.

Due to the initial clinical suspicion of sporotrichosis, the patient was started on 200 mg of itraconazole every 12 hours, which had to be discontinued due to gastrointestinal discomfort 10 days later. The polymerase chain reaction (PCR) assay of the *Mycobacterium tuberculosis* complex and non-tuberculous *Mycobacterium spp.* was negative.

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However, the culture showed positive results for *Sporothrix schenckii* in five days (reported after two days). One week later, the patient began treatment with liposomal amphotericin B at a dosage of 5 mg/kg/day for three days as an induction regimen and then once monthly, as part of treatment maintenance. This was continued until resolution of the clinical course, which happened four months later when the patient showed no skin lesions. The skin lesions remained non-recurrent six months after the end of treatment.

Written informed consent of the patient for the purpose of publication was obtained.

## Comment

Sporotrichosis is a subcutaneous mycosis caused by a dimorphic fungus of the genus *Sporothrix*. Cases of sporotrichosis can be observed in any part of the world, with some areas of 'hyperendemicity'. These include many tropical and subtropical countries where the manifestations of the condition are relatively more frequent due to more occupational exposure (e.g. in Peru the reported incidence is 1/1,000 cases/year, while in the United States it is 1- 2 cases per million).[1]

Without predilection for age, sex or race, the occurrence of the disease depends on the fungus being in the environment and traumatic inoculation into the skin. The male predominance of this disease is believed to be due to greater exposure rather than greater predisposition. Traumatic inoculation is the reason why the extremities (upper extremities, in particular) and bare parts of the body are affected most often.

The existing literature describes single or multiloculated cutaneous forms that can be lymphocutaneous (the current case) or systemic (may compromise the lungs, breasts, liver, kidney, eyes, heart and genitalia).[2] Culturing in Sabouraud dextrose agar continues to be the gold standard since a histological study may be less profitable and requires histochemical techniques such as periodic acid Schiff or Grocott-Gomori methenamine silver stains to identify fungal structures. In some reference centres, a PCR assay is used for its diagnosis, although the kits are not commercially available. The differential diagnosis following a sporotrichoid eruption pattern is quite vast, encompassing cutaneous tuberculosis, leishmaniasis, nocardiosis, chromoblastomycosis, blastomycosis, paracoccidioidomycosis and atypical mycobacteriosis.

The first line of treatment in the lymphocutaneous variety is oral itraconazole at a dosage of 100 mg/day.[3] While oral terbinafine has been used with moderate success, in more resistant cases, the use of oral saturated solution of potassium iodide (SSKI) has been reported. This last modality lacks a standardised commercial formulation and its metallic taste and uncertain mechanism of action have relegated it to a second or third line choice for treatment. Liposomal amphotericin B may be a more effective option in immunosuppressed patients or those with low therapeutic adherence.[4] Among its side effects are fever, headache, malaise, hypokalaemia, hypomagnesaemia, cardio and nephrotoxicity. The use of other less conventional treatments such as photodynamic therapy has only been reported as part of case series and with uneven results.[5]

### AUTHORS' CONTRIBUTION

IPL and RRV were both involved in conceptualisation, collection of data, writing and final approval of the manuscript.

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