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Superficial Cutaneous Sporotrichosis, Report of a Case with Adequate Response

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ABSTRACT

Introduction: Sporotrichosis is a mycosis caused by the fungus of the genus Sporothrix, of which six species related to human sporotrichosis are recognized, being the S. schenkii complex the most related to transmission in humans. The entry of the agent occurs by contact between the injured skin and the fungal spores, subsequently the fungal conidia are deposited in the host tissue and when introduced, become yeast. The fungus, now in its yeast-like phase, may remain at the site of entry or spread to other sites following the lymphatic vessels (1).

Case presentation: We present the case of a 62-year-old male patient with arterial hypertension of 6 years of evolution, gardener, who came to our unit due to the presence of blistering and ulcerative lesions (image 1) on the foot and ipsilateral thigh. He received empirical treatment by private means with acyclovir cream and oxytetracycline, due to the characteristics of the lesions he was treated for herpes zoster with standard dose Acyclovir, he was seen in an outpatient internal medicine clinic one week later. Due to persistence of lesions and scarce reduction in symptomatology, a diagnosis was made according to clinical history, dermal and biochemical pattern of probable mycosis, with emphasis on sporotrichosis or "gardener's disease", initiating treatment with itraconazole fractional dose for four weeks, with weekly follow-up of the case.

Conclusions: At present, the diagnosis of S. schenkii, is of exclusion, in the face of predominant agents in the region. The most frequent clinical forms in humans are the fixed cutaneous form, the lymphatic form and the disseminated form; the latter has a poor prognosis due to its association with immunodeficiencies. Our case is an example of timely diagnosis with appropriate initial azole-based treatment, reflecting a successful case response, inviting the clinician to early integration

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1. INTRODUCTION

Sporotrichosis is a mycosis caused by the fungus of the genus Sporothrix, of which six species related to human sporotrichosis are recognized, being the S. schenkii complex the most related to transmission in humans (1).

It is a saprophytic fungus found in organic matter, dead wood, mosses, hay and corn stalks. It grows in environments with temperatures between 6.6 degrees and 28.84 degrees and relative humidity between 37.5% and 99.06%, being associated with outdoor work such as gardening, florists or other outdoor activities or contact with animal carriers such as cats (zoonosis), having no other relationship in terms of prevalence to age or sex (2, 3).

It is considered the most frequent cutaneous mycosis in Mexico; the exact incidence of cases is unknown; in areas such as Jalisco and the northern highlands of Puebla, 25 cases per 1,000 inhabitants are estimated, increasing the incidence during cold seasons and dry weather (3, 4, 5).

The entry of the agent occurs by contact between the injured skin and the fungal spores, subsequently the fungal conidia are deposited in the host tissue and when introduced, they become yeast. The fungus, now in its yeast phase, may remain at the site of entry or spread to other sites following the lymphatic vessels (1). Two periods can be documented:

- Subclinical period: begins when the first signs appear.

- Incubation period: 1 week to 3 months. Most infections manifest themselves after 3 weeks (5).

Symptomatology is related to the location of the lesion: Lymphocutaneous, upper extremities such as forearm, hands and face. Fixed/localized cutaneous, papule or pustule type lesion, later a subcutaneous nodule is formed, it softens and turns into a gum, ulcerates and secretes contents purulent.

Ulcerative lesions, with erythematous borders or vegetative, warty appearance. Disseminated cutaneous: non-contiguous lymphatic and cutaneous lesions. Mucocutaneous: ocular mucosal lesions. Finally, extracutaneous symptomatology: involvement of osteoarticular and pulmonary tissue generating cough, expectoration, dyspnea, pleuritic pain, among others. The steps in the diagnostic algorithm (Diagram 1) should be identified for an adequate approach.

2. PRESENTATION OF THE CASE

A 62-year-old male patient with arterial hypertension of 6 years of evolution, gardener, who came to our unit due to the presence of blistering and ulcerative lesions (image 1) on the foot and ipsilateral thigh, of one week of evolution, manifesting pruritus, erythema, burning and intermittent fever of 38-5°C.

Imagen 1. Own source.

Upon questioning, she received empirical treatment in a private setting with a diagnosis of herpes simplex, managed with acyclovir cream and oxytetracycline for 5 days with an increase in frequency and dose of the latter.

Given the persistence of symptoms, she came to our unit, according to the characteristics of the lesions, treatment was adjusted, with an initial diagnosis of herpes zoster, with standard dose Acyclovir, and an appointment in outpatient internal medicine a week later.

Subsequently, there was a slight reduction of lesions on the left buttock and ipsilateral foot (Image 2), a diagnosis was made according to clinical history, dermal and biochemical pattern of probable mycosis to be determined with emphasis on sporotrichosis or gardener's disease, initiating treatment with itraconazole fractionated dose for 4 weeks (Table 1), with follow-up every 7 days for both sites (Image 3).

Image 2. Own source.

Image 3. Dorsum of left buttock, week 1-3 from left to right.
Own source.

After four weeks of azole-based treatment, a favorable response was observed (Image 4), with reduction in initial symptoms, manifesting slight residual neuropathy secondary to lesion intensity, discharging from our service with quarterly monitoring for comorbidities.

Image 4. Own source.

Our case report denotes the efficacy of an adequate treatment at the right time, restructuring a precise exclusion diagnosis, concluding as a primary end the resolution of the clinical case, increasing the success rate in our unit.

3. CONCLUSION

Currently, the diagnosis of S. schenckii is an exclusion in the face of predominant agents in the region. Our case is an example of timely diagnosis with appropriate initial treatment, reflected in a successful case response, inviting the clinician to early integration.

4. AUTHORS' CONTRIBUTION

- Conceptualization: Romero-Sánchez Alan Jesús, Ramírez-Ruiz Antonio
- Research: Romero-Sánchez Alan Jesús, Ramírez-Ruiz Antonio, Nancy, Camero Andrés.
- Visualization: Romero-Sánchez Alan Jesús, Ramírez-Ruiz Antonio, Nancy, Camero Andrés.

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1. Appendix

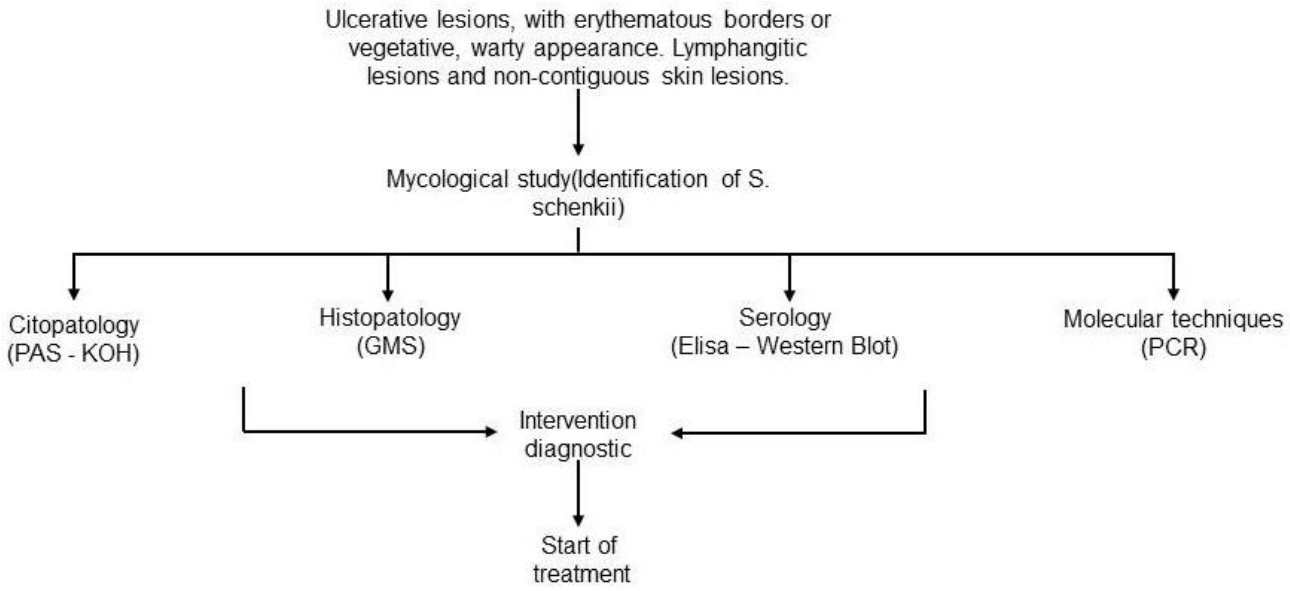

Diagram 1. Own source.

Cutaneous/ lymphocutaneous	**Osteoarticular**	**Pulmonary**	**Meningeal or generalized**	**Pregnant women and children**
Itraconazole OV 200 mg/day for 2-4 weeks.	Itraconazole OV 200 mg every 12 hours for 12 months.	Amphotericin B lipid 3-5 mg/kg IV or conventional amphotericin B 0.7-1 mg/kg/day IV until response, then itraconazole 200 mg OV every 12 hours. Total 12 months.	Amphotericin B lipid 5 mg/kg/day IV for 4-6 weeks; then, if there is response, itraconazole 200 mg OV every 12 hours for 12 months.	Severe cutaneous: lipid amphotericin B 3-5 mg/kg/day IV. Avoid itraconazole
OV: oral IV: intravenous **Table 1.**				