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# Spontaneous resolution of exuberant localized sporotrichosis after childbirth

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## Abstract

Sporotrichosis is caused by the thermodimorphic fungi of the genus *Sporothrix*. It is the most common cutaneous mycosis in Latin America, but it is considered uncommon in pregnancy. We report a pregnant woman with an exuberant ulcerated plaque that proved to be localized sporotrichosis. Therapy choice is a difficult decision in this group of patients. In this case, there was complete resolution of the infection after delivery, without any therapeutic intervention.

*Keywords: pregnancy, sporotrichosis, therapeutic.*

## Introduction

Sporotrichosis is a cutaneous mycosis of widespread occurrence, caused by fungi of the *Sporothrix* complex. Transmission usually occurs through traumatic inoculation of the etiological agent into the skin. In 1998, a feline zoonotic transmission epidemic began in the state of Rio de Janeiro and spread to other regions [1,2]. Some groups are at risk for severe clinical manifestations; these include elderly patients, AIDS patients, or patients with other comorbidities. Although women appear to contract this infection more commonly than men, it is still an uncommon infectious disease in pregnancy [3,4].

## Case Synopsis

An 18-year-old woman, 28 weeks pregnant, presented with an ulcerated plaque of the abdomen,

that had evolved over two months; burning pain was noted at the site (**Figure 1**). She sought medical attention and cephalexin was prescribed with no response. She denied fever and contact with cats, but lived in a forested area with mosquitoes.

A biopsy was performed and the material was sent for histopathological examination, cultured for fungi, and imprinted to investigate for leishmania. Fungal culture confirmed the diagnosis of sporotrichosis. She was instructed to apply warm compresses, but the patient reported not having done it and was subsequently lost to follow-up. Upon return after 6 months, complete resolution was observed, with only a residual scar (**Figure 2**).

## Case Discussion

The clinical picture of sporotrichosis in a pregnant woman is similar to a classic picture, with lymphocutaneous forms predominating. The etiologic agent of this disease does not affect pregnancy, as demonstrated by Costa et al. [4] and Ferreira et al. [5] in their case reports. No important indicators were found to demonstrate clinical or laboratory differences between pregnant and non-pregnant women.

The choice of treatment of sporotrichosis should be based on the clinical presentation, the immunological status, and the maternal-fetal risks, both from the medication and from the infection. Spontaneous resolution is rare and treatment usually requires systemic therapy [6].



**Figure 1.** Cutaneous sporotrichosis at 28 weeks of pregnancy: ulcerated plaque on the abdomen.

The work by Barros et al. [7] showed that only 7.3% of patients with sporotrichosis showed spontaneous regression of skin lesions. In this endemic area, spontaneous cure has been reported to range from 11–18% among cases [8]. Almeida Jr et al. [6] published a case report of lymphocutaneous sporotrichosis in a pregnant woman with resolution without intervention, after 28 weeks of pregnancy.

The drugs currently available in Brazil for the treatment of sporotrichosis are potassium iodide, terbinafine, itraconazole, and amphotericin B. The treatment of choice is oral itraconazole. However, in pregnant women, it should be avoided because of its teratogenic potential and embryotoxicity, being considered category C [9-12]. De Santis et al. [12] studied pregnant women exposed to itraconazole in the first trimester of pregnancy and concluded that the rates of spontaneous and induced abortion were higher in the exposed group compared to the control group.

The use of saturated potassium iodide solution is contraindicated in pregnancy as it is associated with neonatal hypothyroidism, thyromegaly, fetal respiratory obstruction, and prolonged delivery; it is designated as a category D drug. There are no studies on the safety of terbinafine in pregnancy and



**Figure 2.** Scar and hyperpigmentation 6 months after childbirth.

its effects on the fetus are unknown, although it is considered category B [10,12]. Local heat therapy is based on the thermal intolerance of fungi and can be indicated as an effective therapeutic option in cutaneous mycoses in healthy individuals with localized lesions [4,5].

The work by Ferreira et al. [5] reports 12 cases of pregnant women with sporotrichosis and their clinical follow-up, demonstrating the possibility of controlling the lesions by thermotherapy.

Systemic sporotrichosis is treated more aggressively. Amphotericin B is the most effective drug in the treatment of systemic sporotrichosis and there are no reports of harmful effects on the fetus. It is recommended for the treatment of severe sporotrichosis during pregnancy, but the frequency of its adverse effects, such as hyperpyrexia, nausea, vomiting, anemia, and renal toxicity limits its choice in the treatment of localized disease [10,12]. Therefore, currently, only two forms of treatment can be recommended to pregnant women: local heat or amphotericin B if systemic. If the infection is small and localized and the pregnant woman does not present with other complications, the ideal is to adopt conservative treatment with local heat until the time of delivery, when the clinical situation can be reassessed [4,5].

In the case described, our pregnant patient's localized sporotrichosis healed spontaneously after

delivery; 6 months post-partum, only residual scarring and hyperpigmentation was observed.

## Conclusion

Even though sporotrichosis has a widespread occurrence, it is uncommon in pregnant women. Among the therapeutic options, itraconazole should be avoided, potassium iodide is contraindicated, and there are no studies on the safety of terbinafine. Amphotericin B is not considered harmful to the fetus, but it is indicated only in cases of disseminated

disease on account of the potential for severe side effects. A conservative option for localized cases is thermotherapy with application of local heat. In this case, without any therapeutic intervention there was complete resolution delivery of the pregnancy. Total regression of the cutaneous infection was observed, with only residual scarring and hyperpigmentation after six months.

## Potential conflicts of interest

The authors declare no conflicts of interest.

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