The historical burden of sporotrichosis in Brazil: a systematic review of cases reported from 1907 to 2020

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Advice	
For pet owners	**Papers**
Responsible ownership of cats, as keeping adequate feline health and restricting cats to access the street.	[1, 2]
Wearing gloves and protection clothes when take care of sick animals.	[3]
Isolation of sick felines.	[4]
Diseased animals should not be abandoned.	[5 – 7]
Appropriate disposal of dead animals, such as burning their bodies.	
For Veterinaries	
Developing a quick diagnostic, mainly in cats due to their high transmitter potential.	[8]
Wearing protective equipment to take care of ill animals.	[9, 10]
For governments	
Providing educational actions for the population.	[11, 12]
Ought to control of the feline population as implement programs to limit feline reproduction.	[1, 4]
Providing free care for animals with sporotrichosis.	
Implementation of basic sanitation, regular garbage collection and regular cleaning of vacant lots	[2]
Should implement the obligatory notification of Sporotrichosis in all Brazil territory.	[13]
Determining the size of the feline population through the rabies vaccination campaigns.	[14]
Laboratory	
Care must be taken at all laboratory procedures, as the use of biological safety cabinets, appropriate PPE, and careful manipulation.	[15]
It is indicated skill professionals to analyses the direct examinations in order to adequately diagnose.	[16]
Treatment	
The high efficiency and the lower cost of itraconazole 100 mg/day indicate that this therapy may be used for the treatment of fixed and lymphocutaneous sporotrichosis.	[17]
Suggesting that terbinafine is an effective and well-tolerated alternative to drug therapy of cutaneous sporotrichosis in a population in which itraconazole use is not possible.	[18 – 20]
Cryosurgery should be indicated as soon as a slow treatment response is identified, especially in patients with comorbidities such as cardiovascular disease.	[21]
Pregnancy treatment	
The treatment with azoles and KI during the pregnancy should be avoided since they cause neonatal deleterious effects.	[22, 23]

Cryosurgery and Local thermotherapy is indicated to pregnancy with small and localized lesion.	
Amphotericin B is recommended to the treatment of severe sporotrichosis during pregnancy since it does not cause harmful effects in fetus.	
HIV treatment	
For patients co-infected with HIV, lifelong maintenance therapy is recommended and itraconazole is the drug of choice.	[24]
The amphotericin B appears to be a reasonable choice for treatment of HIV co-infected patients.	[25]
Caution must be recommended when considering fluconazole as treatment of sporotrichosis in patients with AIDS.	
It is recommend corticosteroid for mild to-moderate cases of IRIS in sporotrichosis and HIV coinfection with close follow-up.	[26]
Diagnostic	
Negative cultures should be repeated, if possible, after a few days, as well as the serologic tests, especially when patients have less than one month of symptoms.	[27, 28]
It is strongly suggested ELISA assay against the antigen SsCBF for the differential diagnosis and follow-up of all clinical forms of sporotrichosis. Moreover, it could be available in Brazil's Unified Health System.	[29, 30]
Sporotrichosis should come to mind in cases of chronic meningitis and serological tests should urgently be widely available to enable earlier diagnosis of *sporothrix* in LCR, prevent severe CNS damage, and reduce mortality rates.	[31, 32]
With the increasing number of sporotrichosis cases and HIV co-infection, the physicians must be aware for less frequent clinical presentations	[33 – 36]
Sporotrichosis should be considered as a manifestation of IRIS in countries where mycosis occurs and where HAART is available. In addition, increased surveillance is needed to prevent the risk of sporotrichosis meningitis in this context. Moreover, it should be performed an early lumbar puncture to treat this disease in the CNS.	[37 – 40]
Sporotrichosis could be used as a HIV diagnostic tool.	[41]
Osteoarticular sporotrichosis should be considered even in the absence of skin lesions or with unusual manifestations.	[42 – 45]
Public health agencies must be aware of primary pulmonary sporotrichosis to better prevent, diagnose, manage the disease and control outbreaks.	[46]
Ophthalmologists should become familiar with ocular sporotrichosis, for early accurate diagnosis and prompt treatment, avoiding severe forms and ocular sequels.	[47 – 49]

Dentists ought to be aware about sporotrichosis, mainly in immunosuppressed host.	[50]
Differential Diagnostic	
Sporotrichosis needs to be differentiated from other diseases, including cat-scratch disease, leishmaniasis, paracoccidioidomycosis, impetigo bacterial and carcinomas.	[6, 51, 52]
Veterinarians should be aware about differential diagnosis of cutaneous dirofilariose, histoplasmosis, blastomycosis, cryptococcosis, phaeohyphomycosis and neoplasias in cases of feline sporotrichosis.	[53]

PPE – Personal protective equipment. SSKI – Saturated potassium iodide solution. KI – Potassium iodide. LCR – liquor. CNS – Central nervous system. IRIS – Immune reconstitution inflammatory syndrome. HAART – Highly active antiretroviral therapy.

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