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Case Study

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CUTANEOUS SPOROTRICHOSIS: A RARE CASE REPORT

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ABSTRACT

Sporotrichosis is a fungal skin infection caused by Sporothrix schenckii. We report a 73-year-old male presented with non healing oozy lesion over right index finger and that the lesion had developed afterwards about 1 yrs ago following history of manipulation with thorn. The nodule was histopathologically diagnosed as sporotrichosis. The dermoscopic features of sporotrichosis have not yet been reported as far as we are aware. We believe that coexistence of the above features, which could be thought to be nonspecific when seen separately, may be of diagnostic significance and a helpful tool in the diagnosis of cutaneous sporotrichosis.

KEYWORDS: cutaneous sporotrichosis, Sporothrix schenckii, fungal, dermoscopy, histopathology.

INTRODUCTION

Sporotrichosis is a cutaneous infection caused by *Sporothrix schenckii*, a widely distributed dimorphic ascomycete fungus found in decaying vegetation, soil, and contaminated organic matter.[1] The infection is usually localized in the skin and subcutaneous tissue. Systemic disease is rare and it may be developed by inhalation of spores through the respiratory tract.[2]

It occurs worldwide, but it is endemic in South Africa, Central America, South America, Japan and India, more commonly seen in tropical and subtropical zone. Many animals are considered susceptible such as horses, dogs, cats, rats, pigs, cows and armadillos.[3]

Sporotrichosis affects people of any age, either male or female without any predisposing factor, except in the systemic form. It is associated with agricultural, gardening and other activities that promote traumatic contact with plant material or soil.[4]

Sporotrichosis is classified in cutaneous forms (lymphocutaneous and fixed cutaneous), extracutaneous and disseminated forms. The lymphocutaneous form is the most common. For a definitive diagnosis of this mycosis, fungal culture should be performed. Colonies performed at room temperature present a creamy white color that convert into the characteristic brown-black leathery colonies. At 37 ºC, the colony turns to a yeast-form and a creamy aspect with irregular surface. The demonstration of the long, thin, hyaline hyphae and conidia displaying a bouquet configuration, like daisies on the microscope associated with the fungus dimorphism confirms the diagnosis.[5]

CASE REPORT

A 73-year-old male presented with non healing oozy lesion over right index finger and that the lesion had developed afterwards about 1 yrs ago. History manipulation with thorn was present. (Figure 1).

On microscopically show with hyperplastic keratinized stratified sequamous epithelium with focal hyperkeratosis, moderate acanthosis and keakeratosis. Dermis shows diffuse dense mixed inflammatory infiltrate comprised of lymphocytes plasma cells, histiocytes, epitheliod histocytes, acute inflammatory cell and micro abscesses.

PAS staining for fungal spores was positive. Finally patients diagnosis with coetaneous sporotrichosis.

Fig 1: shows non healing oozy lesion over right index finger.

DISCUSSION

Sporotrichosis (rose gardener's disease) caused by Sporothrix schenckii is the most common subcutaneous mycosis. The disease can present in the lymphocutaneous, fixed cutaneous or disseminated cutaneous form.[5]

The infection usually results from the inoculation of the agents on the skin or mucosa following trauma with contaminated plant materials, leading to an increased risk in farmers, gardeners, florists and foresters.[6]

The differential diagnosis includes leishmaniasis, cat-scratch disease, cutaneous nocardiosis, chromomycosis, syphilis, granuloma annulare, and pyodermagangrenosum. The gold standard for the diagnosis of sporotrichosis is the isolation and the identification of the Sporothrix species from clinical samples. Histopathology, serology and molecular studies (PCR) are the other current diagnostic methods.[7]

Dermoscopy is a non-invasive diagnostic tool that is mainly used for evaluating pigmented skin lesions. It is now also widely used for the diagnosis of various inflammatory and non-inflammatory disorders of the skin. Dermoscopy of skin infections and infestations, i.e., "entodermoscopy", has opened a new horizon in the diagnosis of these disorders as a fast and practical method in recent years. There is increasing evidence showing dermoscopy to be helpful in facilitating clinical recognition, confirming the diagnosis, making the differential diagnosis, and even monitoring the treatment response.[8]

CONCLUSION

Some dermoscopic features can be highly specific to the disease as in the example of scabies, which shows a "jet with contrail" appearance, while some dermoscopic signs can be seen in multiple disorders and are therefore considered 'nonspecific'. We believe that dermoscopy could become a helpful non-invasive tool for the diagnosis of cutaneous sporotrichosis.

Conflict of interest- nil.

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