



International Journal of Medical Research & Health Sciences

www.ijmrhs.com

Volume 4 Issue 1

Codon: IJMRHS

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ISSN: 2319-5886

Received: 8th Nov 2014Revised: 4th Dec 2014Accepted: 25th Dec 2014

Case report

SUBCUTANEOUS PHYCOMYCOSIS: A CASE REPORT

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ABSTRACT

Subcutaneous Phycomycosis is a rare tropical Mycoses characterized by the development of a chronic, firm swelling of the subcutaneous tissue. Infection caused by Basidiobolus species commonly affects young children. In this article we present a case of Subcutaneous Phycomycosis which presented as a diffuse swelling in the posterior aspect of the knee. Early diagnosis and treatment with Itraconazole caused complete clearance of the lesion. We highlight the merits of accurate diagnosis and early therapeutic intervention in this rare case.

Keywords: Phycomycosis, Basidiobolus, Conidiobolus, Subcutaneous, Aseptate hyphae

INTRODUCTION

Subcutaneous Phycomycosis is also called Basidiobolomycosis, Subcutaneous Zygomycosis, Conidiobolomycosis, Rhinoentomophthromycosis. It is a rare tropical subcutaneous mycosis¹. It is caused by Basidiobolus ranarum and Conidiobolus coronatus². The lesion usually starts as a small subcutaneous nodule that slowly increases in size over a period of months. Lesions are usually painless and ulceration over skin is uncommon. Commonly involved areas are trunk, limb and buttocks³.

CASE REPORT

A 8 year old girl presented to Dermatology OPD with swelling over the back of Right leg for the past 2 years (Figure 1). It started as a small swelling and progressed to the present size. The swelling was not itchy and was painless. There was no history of fever or other constitutional symptoms. There was no history of difficulty in walking.

Examination: On examination, there was a firm, non tender, annular diffuse swelling of size 10 x 7 cm on the posterior aspect of right knee joint. The borders were raised and nodular (Figure 1). Regional lymph

nodes were not palpable. The finger insinuation test was positive. Her general, physical and systemic examination was normal. Routine lab investigations were also normal. Biopsy was done from the swelling and sent for histopathological examination and fungal culture.

On Histopathological examination, multiple eosinophilic, broad, aseptate fungal hyphae were seen in the dermis (Figure 3). Fungal culture was done with Cycloheximide free Sabouraud's Dextrose agar at 30 degrees Celsius. It showed waxy yellow colonies with radial folds classical of Basidiobolus.

Treatment: As soon as the diagnosis was confirmed, the patient was started on Capsule Itraconazole 100mg once a day. Lesions started regressing from day 10. There was complete resolution of the lesions after 30 days of Itraconazole. (Figure2). Post inflammatory Hyperpigmentation was present. The child tolerated Itraconazole very well and there were no adverse effects. The child was followed up for 6 months after the treatment with no relapse of the disease.



Fig 1: Diffuse swelling over the posterior aspect of the knee



Fig 2: Complete resolution with treatment

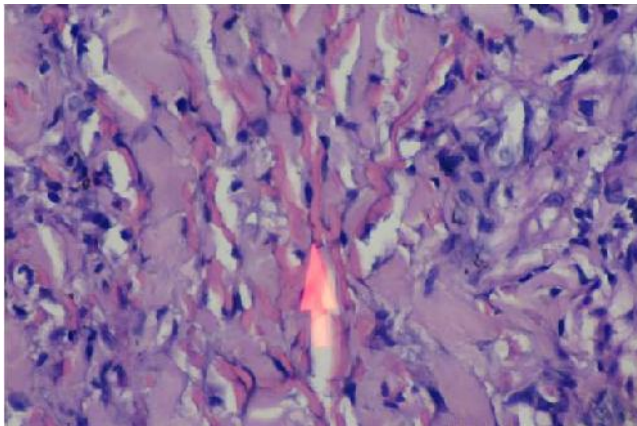


Fig 3: HPE Eosinophilic, broad, aseptate fungal hyphae

DISCUSSION

Subcutaneous Phycomycosis is a rare subcutaneous fungal infection. Two organisms which are usually responsible for causing this infection are *Basidiobolus ranarum* and *Conidiobolus coronatus*⁴. The *Basidiobolus* infection is seen in Paediatric age group, whereas *Conidiobolus* is seen in adults. *Basidiobolus* infection commonly affects limb and limb girdle areas⁵. Route of entry is not known. The swelling is firm, painless and well circumscribed and

may grow to a huge size to involve the whole limb⁶. The skin may be atrophic and discoloured or hyperpigmented but does not ulcerate. Vessel involvement and thromboses does not occur. Definitive diagnosis is made by histopathological study and fungal culture. HPE shows multiple eosinophilic, broad, aseptate fungal hyphae in the dermis⁷. Culture is done with Cycloheximide free Sabouraud's Dextrose agar at 30 degrees Celsius. A waxy yellow colony with radial folds in fungal culture is conclusive of *Basidiobolus ranarum* infection. Itraconazole⁸ is the drug of choice. Potassium Iodide⁹ can also be given. It carries a good prognosis if diagnosed early and treated properly¹⁰.

CONCLUSION

As it is said, Subcutaneous Phycomycosis is very rare in India. Biopsy and fungal culture can establish an accurate diagnosis. Timely management with systemic therapy is required for curing this disease.

ACKNOWLEDGEMENT

We would like to thank our Department of Dermatology for helping us with this article and our families for their constant support.

Conflict of Interest: Nil

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