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Pheohyphomycosis in an immunocompetent patient: A rare infection

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Abstract
Pheophyphomyosis is rare infection caused by dematiceous (brown /black) fungus. It is an opportunistic, fungal infection which is usually seen in immunocompromised individuals. Here we report a case report of pheohyphomycosis in immunocompetent. 52y old male patient presented as ulcerated lesion in foot.

Keywords: Pheohyphomycosis, immunocompetent patient, rare infection

Introduction

Case report

52 year old male patient presented with large lesion on medial and dorsal aspect of left foot for 1 year and small swelling in right leg, (shin region) for four months. On examination the lesion on left foot was of size around 8x8 cm, firm, indurated to cystic in consistency, reddish in colour and ozzy at places. (Fig 1) The swelling in right leg was of size around 3x3cm, firm in consistency and was not ulcerated. There was no history of trauma, contact with chemical, insect bite or foreign travel. Systemic examination revealed no abnormality. Complete haemogram showed only mild neutrophilic leukocytosis. Human immunodeficiency virus (HIV) and Veneral derived Research Laboratory tests (VDRL) were negative. On FNA the aspirate came out to be purulent. Cytosmears were stained with May Grunwald Giemsa (MGG) showed degenerated neutrophils, lymphocytes and macrophages and scattered in between pigmented branching fungal hyphae (Fig 2). The aspirate was sent for which showed no bacterial growth and confirmed the fungal growth consistent with pheohyphomycosis.

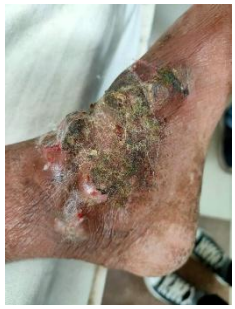

Fig 1: Left foot lesion showing ulceration, induration and cystic areas.

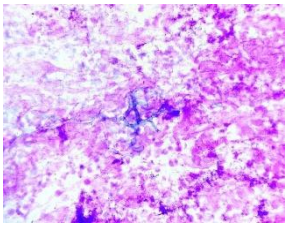

Fig 2: Septate pigmented branching hyphae with degenerated neutrophils and lymphocytes in background (MGG, 40X)

Discussion

The term pheohyphomycosis term was coined in 1974 caused by dematiceous (brown /black) fungus [1]. Three classes of dematiceous phaeohyphomycosis, chromoblastomycois, and eumycotic mycetoma [2].

More than 130 fungal species and 70 genera have been reported as causative agents in human and animal phaeohyphomycosis [3].

Their distribution is worldwide and are more common in tropical and subtropical climates [4]. In India, 23 patients with subcutaneous pheohyphomycosis have been reported, distributed throughout the country in a belt from north to south, sparing the eastern and western regions [5]. The major etiologic agents of phaeohyphomycosis are species of Bipolaris, Exophiala, Curvularia, Chaetomium, Phoma, Exserohilum, and Wangiella [2]. It is a rare infection mostly involving the skin and subcutis, and other sites like paranasal sinuses, eyes, central nervous system, lymph nodes and bone can be involved [5]. Immunocompromised patients these infections usually systemic [5]. However our case was immunocompetent and pathogenetic mechanism could be explained on the basis that any thorn prick injury to the foot would have initiated the process and melanin produced by the fungus could be the virulent agent as explained by other studies also [7].

Conclusion

Pheohyphomycosis is a rare case which can be present in immunocompetent patients and clinically this entity should be kept in mind as a differential diagnosis of subcutaneousswellings in addition to other common illness like lipoma, fibroma, inclusion cysts or foreign body reactions. In case if it is ulcerated lesion the malignant ulcer should be ruled out particularly in older individual. FNA is simple procedure for diagnosis and at the same culture can be sent for confirmation of the fungal species.

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