Atypical Cutaneous Manifestations of Ataxia-Telangiectasia Infected By *Fusarium*

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Introduction

Ataxia-telangiectasia (A-T) is a rare immunodeficiency syndrome characterized by progressive neurologic impairment, cerebellar ataxia, ocular telangiectasia, defects in DNA repair. Dermatologic manifestations of A-T include cafe-au-lait macules, poikiloderma, seborrheic dermatitis, cutaneous granulomas. There are 22 cases of AT with cutaneous ulceration reported in the literature. The lesions are frequently described as erythematous, indurated plaques with overlying scale that in some cases become atrophic and ulcerated. The arms and legs are most frequently involved, followed by the face. These lesions are almost universally progressive. An abnormal angiogenic response of the endothelial cells or pericytes can be possible causes of skin findings.

Herein, we report a patient with A-T having varied progressive skin lesions on bilateral arms and foot biopsy of which revealed vasculitic inflammatory lesions. Lesion on foot was complicated with *Fusarium* infections that proceeded to osteomyelitis.

Case

A 13 year old boy diagnosed A-T, having the history of non-hodgkin lymphoma, bladder wall telangiectasia admitted with fever and purulent discharge from lesions on foot penetrating to bone. He had large, deep, multiple eroded skin lesions and telangiectasia in eyes, ears. He was immobile due to cerebellar involvement. He was on intravenous immunoglobulin treatment due to the combined immunodeficiency. Laboratory investigation revealed white blood cell count 3300/mm³ (neutrophil:3300, lymphocyte:1000), erythrocyte sedimentation rate 110/hour, C-reactive protein 12.6 mg/dl. The culture of the three discharge yielded *Fusarium proliferatum*. The blood cultures were sterile. Posaconazole was used to be started due to the history of allergic reaction to amphotericin B and voriconazole. The magnetic resonance of the foot demonstrated osteomyelitis. The lesions were successfully treated without development of invasive infection.

Conclusion

Fusarium species cause a broad spectrum of infections in humans, including superficial infections as well as locally invasive and disseminated infections. The skin may occasionally be a portal of entry, from tissue breakdown or onychomycosis and may predispose to the development of invasive fusariosis in severely immunocompromised patients, particularly among those with prolonged and profound neutropenia and severe T cell immunodeficiency. Although it is not the first choice and the clinical experience is limited, posaconazole can be used as salvage therapy.