A verrucous plaque on the lower leg

Sarina Drusinsky¹, Karan Lal², Faisal Hamid ³, Viktoryia Kazlouskaya⁴

1 Dermatology practice, East London, South Africa
2 New York College of Osteopathic Medicine, New York, USA
3 Jamaica Hospital Medical Center, New York, USA
4 Ackerman Academy of Dermatopathology, New York, USA


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Corresponding author: Viktoryia Kazlouskaya, M.D., Ph.D., Ackerman Academy, 145 East 32nd Street, New York, NY 10016. Tel. 800.553.6621. Email: viktoriakoelovskaya@yahoo.com

Quiz case

A 52-year-old male patient from South Africa presented with a lesion on his lower left leg extending from the ankle to just below the knee that has been present for twenty years. The lesion first developed as a verrucous nodule close to the lateral part of the ankle and gradually enlarged, involving the entire lower leg. Clinical examination revealed a verrucous plaque with an elevated border and central areas of atrophy and scar formation. The patient was otherwise healthy, in an excellent physical profile (Figure 1). He had no associated leg pain, abdominal pain, or any history of recurrent fevers. There was no history of systemic disease, and physical examination with CBC was within normal limits. A biopsy was obtained from the verrucous plaque. Histopathologic findings revealed epidermal hyperplasia and papillomatosis. Granulomas were noted in the dermis showing central suppuration and necrosis (Figure 2). A marked plasma cell infiltrate was also evident. Copper colored muriform bodies were revealed in some granulomas (Figure 3).

Figure 1. Verrucous plaque on the lower leg. [Copyright: ©2013 Kazlouskaya et al.]

Figure 2. Suppurative granulomas with neutrophils, histiocytes and plasma cells. [Copyright: ©2013 Kazlouskaya et al.]
reveals epidermal hyperplasia with suppuration granulomas. Fungi are also typically seen on biopsy. Culture of the scrapings on the Sabouraud agar aids in identifying the causal organism.

Treatment is region specific but often includes systemic antifungal medications such as terbinafine (200-250 mg/day), itraconazole (100-400 mg/day), fluconazole (100-400 mg/day), and/or ketoconazole (200-400 mg/day). Amphotericin B is less effective and is usually used in combination therapy. This patient was placed on 400 mg itraconazole therapy for two months and clinical improvement was seen in several months (Figure 4). The infection is difficult to treat and it may be refractory to antifungal therapy. Relapses are common. Treatment is usually prolonged and is performed until negative cultures are obtained [3]. Surgical excision or cryotherapy may be performed in cases of small lesions. Heat has been described to help in healing of the lesions. Portable pocket heaters showed to be effective in killing pathologic fungi, with temperatures higher than 420° C [3].

Chromoblastomycosis infection rarely has systemic complications and this is the reason why patients refer to their physician in late stages of the infection. Squamous cell carcinoma may rarely arise in chromoblastomycosis lesions [4]. A case of osseous infection due to overlying chromoblastomycosis has also been described [5]. Lymphedema and elephantiasis may develop as a result of lymphatic spread and obstruction [6]. Cases of internal organ involvement are extremely rare in immunocompetent individuals.

References