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Prothothecosis as a complication of severe bullous pemphigoid: A case report

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Prototheca is a genus of achlorophyllic algae ubiquitous in the environment that rarely causes infection in human and animal hosts. More than 100 cases have been reported since the infection was first identified in 1964. Innoculation with the species *Prototheca wickerhamii* may follow insect bites and trauma, as well as exposure of previously injured skin to contaminated plant products, soil and water. Infection results in subcutaneous granulomatous nodules which may progress to disseminated disease in severely immunocompromised hosts. The characteristic morula form of the endosporulating sporangia of *P wickerhamii* can be identified histopathologically using periodic acid—Schiff or Gomori methanamine silver stains. Treatment consists of surgical excision of small localized lesions in concert with various systemic antifungal, antibacterial, and antiprotozoal agents. We present a case of protothecosis in the context of a patient with severe bullous pemphigoid who was receiving systemic corticosteroid therapy.

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P1711

Primary cutaneous paracoccidioidomycosis: A case report

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Paracoccidioidomycosis is a very common systemic mycosis in Latin America, especially in Brazil. It is caused by *Paracoccidioides brasiliensis*, a thermally dimorphic fungus that is known to live in soil. Usually the fungus enters in the human body by respiratory tract. Rarely, direct penetration of the fungus through the skin is described, so a cutaneous primary lesion of paracoccidioidomycosis is considered rare. The authors report a 40-year-old man who lived in a rural zone of the State of Pará and had a verrucous lesion localized in the proximal region of the leg extending though inguinal region. There was no other cutaneous lesion, and the oral mucosa was also free of lesions. No satellite lymphadenopathy and systemic symptoms were observed. A histopatologic examination of the lesion demonstrated a pseudoepitheliomatous hyperplasia and granulomatous structure with epithelioid cells and a high number of typical *Paracoccidioides brasiliensis* bodies. A chest radiography and an abdominal ultrasound were normal. The therapy instituted was an oral association of sulfametoxazole 800 mg and trimetropin 160 mg twice daily.

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P1712

Sertaconazole nitrate 2% in the treatment of tinea pedis in patients with coexisting onychomycosis

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Tinea pedis is a fungal infection of the skin of the foot, whereas onychomycosis is a fungal infection of the nail. There appears to be a relationship between these two infections, and factors such as advanced age and female sex may increase risk of this infection. In fact, it is estimated that as many as 25% of the elderly may suffer from onychomycosis. The increased risk of infections in the elderly may be caused by poor circulation, concomitant disease states, and the long-term effect of continuous trauma from walking with shoe gear. Isolated treatment of tinea pedis in patients with onychomycosis can be ineffective in the long term because of the high rate of reinfection from fungal debris from the nail. Currently, three medical options are offered for the treatment of tinea pedis in patients with onychomycosis by the authors: (1) topical antifungal therapy; (2) topical and oral (systemic) antifungal therapy; and (3) topical and oral antifungal agents in addition to an antikeratolytic agent. Antifungal agents with antiinflammatory activity and an enhanced dermal retention rates may optimize the outcomes in subjects with an increased risk of reinfection or previous treatment failures. The effectiveness of sertaconazole in the treatment of tinea pedis in patients with comorbid onychomycosis was evaluated in a double-blind, vehicle-controlled, 6-week clinical trial in 40 patients aged 12 to 75 years. All study medication was identical in size, shape, and color, and once randomized, subjects were instructed to apply either sertaconazole 2% or placebo cream topically twice daily to the affected areas for 4 weeks. Subjects were required to have clinic visits at baseline and weeks 2, 4, and 6. A mycobiologic evaluation including KOH and DTM preparation, PAS of the toenail(s) was performed at baseline. Fungal cultures were completed at visit 6. Only local side effects were recorded and reported by participants. Photographic evidence was also collected at baseline and throughout the study to document progress of treatment. To date, 9 patients were randomized to receive sertaconazole and 9 to placebo. A total of 17 patients have completed the full 6-week trial period. An assessment of the mycologic cure rate, negative fungal cultures at week 6, was obtained in all subjects. Very few adverse effects were reported. We conclude that sertaconazole, an imidazole antifungal with antiinflammatory and excellent retention and penetration properties, is an effective agent for the treatment of tinea pedis in those with concomitant onychomycosis.

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Oxiconazole in the treatment of superficial fungal infections

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Oxiconazole nitrate is a topical antifungal used in the treatment of superficial fungal infections in the United States since 1990. It is available in cream and lotion formulations and is approved for the treatment of tinea pedis, tinea corporis, and tinea cruris. The cream formulation is also approved for treatment of tinea (pityriasis) versicolor. The antifungal activity of oxiconazole, an imidazole derivative, includes dermatophytes and yeasts; for example, *Trichophyton rubrum*, *Trichophyton mentagrophytes*, *Epidermophyton floccosum*, and *Malassezia furfur*. The mechanism of action of oxiconazole involves interference with the synthesis of ergosterol in the fungal cell membrane. Oxiconazole demonstrates broad in vitro and in vivo antifungal activity. Treatment of tinea pedis with oxiconazole has shown an excellent clinical response to once-daily therapy for 4 weeks with a mycologic cure rate of 80% at 2-weeks posttreatment. Common side effects of oxiconazole treatment were less than 2% in clinical studies. These effects are typical of topically applied imidazoles and oxiconazole has shown similar safety profiles as such agents. Once-daily application makes it convienient for patients and could result in improved compliance. Oxiconazole is a broadspectrum therapy that is safe for pediatric use. Comparative trials have shown oxiconazole to have comparable efficacy and safety as other topical antifungal imidazoles. Overall, it is a safe and effective alternative in the treatment of tinea infections caused by dermatophytic fungi.

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