Seccosporium apiospermum Skin Infection in a Patient with Nephrotic Syndrome

Sir,
With the advance in the treatment of malignancies and the widespread use of corticosteroids, there has been a prominent increase in the occurrence of opportunistic pathogens. Recently, Seccosporium apiospermum infection of various sites has been reported (1). The organism has low inherent virulence but is a fungal opportunist able to elicit infections. Apart from mycetoma, cutaneous and subcutaneous infection with Seccosporium apiospermum is rarely encountered in clinical practice. We here describe a case of Seccosporium apiospermum skin infection in a patient with nephrotic syndrome.

CASE REPORT
The patient was a 59-year-old man retired office worker, with a history of nephrotic syndrome diagnosed 9 years previously. He had received 10–30 mg/day of oral prednisolone for treatment. In 1990, he developed chronic renal failure, which deteriorated in 1995, and he was referred to the Division of Dermatology for multiple painful abscesses of his left forearm (Fig. 1). When the nodules were punctured, a yellowish white sticky exudate was discharged. No grains were visible in the discharge. Intravenous administration of penicillin was not effective. Routine bacteriological culture of swabs taken from the skin lesions was unhelpful. Direct microscopic examination of scrapings and pus from the area showed no hyphae. A biopsy specimen was taken from the nodule. A haematoxylin and eosin-stained section showed a granulomatous infiltrate containing histiocytes, neutrophils, and multinucleate giant cells within the deep dermis to the subcutaneous tissue. The biopsy specimen stained by periodic acid-Schiff revealed fungal elements within the subcutaneous tissue. Culture of the specimen was performed on Sabouraud dextrose agar at 32°C. It revealed woolly colonies, at first white, then becoming dark brown 4 weeks later. Microscopically, the hyphae were hyaline and septate. Ovoid to round-shaped, smooth conidia were borne singly or in small groups on short simple conidiophores (Fig. 2). Cleistothecia were not observed. The fungus was finally identified as Seccosporium apiospermum. The patient was commenced on itraconazole 50 mg once daily for a week. Due to lack of effect, the dose of itraconazole was increased to 100 mg/day (1.8 mg/kg). Two weeks later, most abscesses disappeared. However, the patient refused further intake of the drug. The fungal disease relapsed, and the patient died of deteriorated nephrotic syndrome and disseminated intravascular coagulation. An autopsy could not be performed, thus the fungal involvement of the internal organs could not be investigated.

DISCUSSION
Seccosporium apiospermum, an anamorph of Pseudallescheria boydii, appears to have a worldwide distribution and is a soil- and water-inhabiting fungus. The organism has low inherent virulence. But in the past few years an increasing number of cases of the fatal disseminated disease have been encountered in severely compromised hosts (1). The fungus grows rapidly on most laboratory media.

The clinical manifestations of infection by Seccosporium apiospermum are quite varied. The most frequent form is mycetomas, a localized type of infection occurring in a normal immune status host following trauma (1, 2). The present case was not a mycetoma, as the infection was multifocal; there was no drain sinus and grains were not seen. Apart from mycetomas, reports of cutaneous and subcutaneous infection with this fungus are still rare. Additionally, there are a few cases of a lymphocutaneous infection in a sporotrichoid fashion (1, 3).

In our present case, oral treatment with itraconazole was effective. Itraconazole seems to be one of the most useful drugs in the treatment of Seccosporium apiospermum infection (3, 4).

Fig. 1. Multiple cutaneous to subcutaneous nodules, 0.5–1.5 cm in diameter, are seen on the left forearm. (The linear scar of the lesion is due to injury suffered 5 years earlier.)

Fig. 2. Slide culture method stained with lactophenol cotton blue demonstrated the presence of Seccosporium apiospermum.

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REFERENCES

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Argas reflexus (the Pigeon Tick) – A Household Pest

Sir,
The family of ticks includes two members: the Argasidae (the soft ticks) and the Ixodidae (the hard ticks) (1). All ticks can bite humans and transmit different germs (2). Cases of anaphylaxis due to a sting by Argas reflexus (the pigeon tick) have been reported (3, 4). To our knowledge, however, A. reflexus is not a vector of Borrelia burgdorferi.

In the case presented here, we diagnosed stings by A. reflexus based on the history of the sting, the presence of pigeons in the attic and the ticks which had been found by the patient (Fig. 2). It is concluded that A. reflexus is a household pest.

CASE REPORT
A 45-year-old Caucasian man living in Munich, Germany, developed overnight a painful, ca. 8 × 8 cm large infiltrated erythematous extremely itching lesion on the left buttock. At the centre of the lesion a sting was visible (Fig. 1). Some stings had been followed by a systemic reaction with fever during the last years. All serological examinations, including antibody measurement against B. burgdorferi, were normal.

Fig. 1. The left buttock of the patient with the sting.  

The man reported that in the last years a lot of pigeons had had nests in the attic.

DISCUSSION
The Argasidae consist of four species: A. reflexus, A. persicus, A. brumpti and A. vespertilionis. The last two species occur in Africa, whereas A. reflexus and A. persicus were found elsewhere. Members of Argas are characterized by their flattened bodies, their thin lateral margins and their leathery integument (Fig 2). A. reflexus is found as an ectoparasite on snakes, lizards, turtles, many birds and some mammals. It hides in the nests or near the roosts of their hosts during the day. The females lay their reddish brown eggs in clumps of 25 to 100. The hatched larvae seek a host. They usually remain attached, feeding for a few days before dropping off to molt to the first-stage nymph. In 10 to 12 days, the second molt occurs, and the second nymphal instar is attained. There are three to four such molts, each one sandwiched between feedings. Finally, the adult form is attained. At night the nymphs and adults are extremely active, climbing onto their hosts and engorging themselves with blood. Frequently they attack humans, produ-