

A soft tissue nodule on the foot

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CASE REPORT

A 70-year-old Surinam woman visited the hospital because of a subcutaneous swelling on the instep of her left foot. She had had this problem for several years, but recently she was experiencing more pain when wearing certain shoes. Physical examination revealed a tender swelling on the foot without any other abnormalities. The clinical diagnosis of a ganglion was made.

At surgical excision, however, a more solid lesion was removed and sent in for histopathological examination. The histological findings showed a sharply demarcated nodule, consisting of partly concentrically arranged fibrous tissue (*figure 1*). The central area was composed of spherical structures (grains) surrounded by abundant neutrophils, necrotic debris and demarcated by a rim of palisaded epithelioid histiocytes and multinucleated giant cells (*figure 2*).

WHAT IS YOUR DIAGNOSIS?

See page 128 for the answer to this photo quiz.

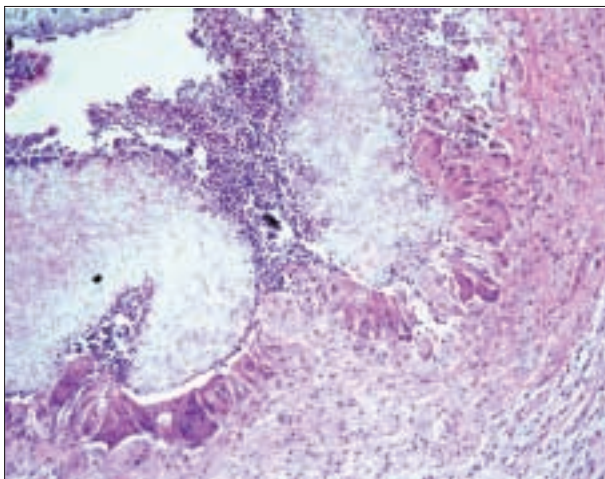


Figure 1
Histology of the nodular lesion consisting of partly concentrically arranged fibrous tissue with a central core of neutrophils and spherical structures (H&E; 2x)

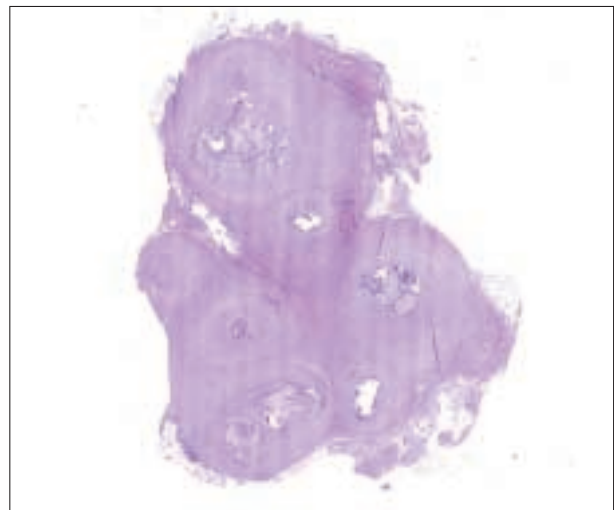


Figure 2
Detail of these structures demarcated with a rim of multinucleated giant cells (H&E; 200x)

ANSWER TO PHOTO QUIZ (ON PAGE 127)
A SOFT TISSUE NODULE ON THE FOOT

The differential diagnostic considerations were mycetoma-like infections as (deep) dermatophytic granulomas (pseudomycetomas) and botryomycosis.

The former is a fungal infection commonly known as tinea when superficial and limited to the keratinous parts of the skin, i.e. stratum corneum, hair and nails. Rarely the fungi invade the deeper nonkeratinised skin and subcutaneous tissue, where they evoke a granulomatous inflammatory reaction resulting in nodular lesions.

Botryomycosis is a chronic, localised lesion of the skin and subcutaneous tissue caused by nonfilamentous bacteria.

Mycetomas are chronic, slowly progressive, but often indolent infections, mainly on the hands and feet, and they are not contagious. Patients are infected by percutaneous implantation of the agent, for instance by a small cut or splinter. Mycetomas are caused by two types of micro-organisms: true fungi (eumycotic mycetoma) or filamentous bacteria (actinomycotic mycetoma). Cultures are needed for the exact determination of those micro-organisms.

Mycetomas are usually localised, but local invasion with destruction of soft tissues and bone can be a result.

Haematogenous or lymphatic spread is rare.

Most infections occur in (sub)tropical areas. Our patient was born in Surinam and has been living in the Netherlands for 15 years now. She had travelled abroad several times, Thailand being her last destination five years ago.

Surgical excision is the treatment of choice for mycetomas. Antifungal therapy does not seem to be necessary for an eumycotic mycetoma, in contrast to an actinomycotic mycetoma for which an early treatment with antibiotics is recommended.

Our patient remained free of pain and was, although not strictly indicated, treated with antimycotics by her general physician.

DIAGNOSIS

The diagnosis is that of an eumycotic mycetoma. PAS-diastase staining shows that the spherical structures are composed of a dense network of hyphae (*figure 3*).

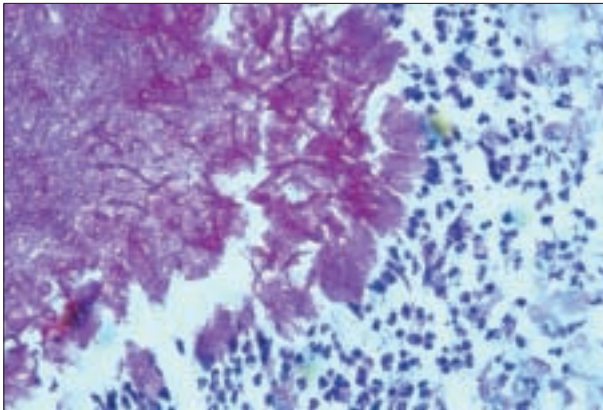


Figure 3
PAS-diastase showing hyphae consistent with a fungal infection (400x)