

PHIALOPHORA RICHARDSIAE ISOLATED FROM A CUTANEOUS LESION

*M. SUPPIAH MMBS, FRCS (Glasgow), FRCSI,

**C.S. CHIN BSc. Hons.

***K.C. KEAH BSc. Hons.

*District Hospital, 84000 Muar, Johor

**Bacteriology Division, Institute of
Medical Research, 50588 Kuala Lumpur

***Pathology Laboratory, District Hospital,
84000 Muar, Johor

SUMMARY

The isolation of *Phialophora richardsiae* from a skin lesion over the left lower tibia and ankle and the characteristics of the fungus are presented. An etiological relationship was suspected but could not be proven.

P. richardsiae – phaemycotic cyst – cutaneous lesion.

INTRODUCTION

Human infections due to *Phialophora richardsiae*, first described in 1968, is usually associated with subcutaneous cysts, although there have been reported cases of ulcerative lesions with discharging sinuses as well as infection of bones and tendon sheaths.^{1,2,3} Because infections by *P. richardsiae* are rare and the fungus relatively unknown in Malaysia, it was thought worthwhile to report the isolation of this fungus from a cutaneous lesion.

CASE REPORT

A 30 year-old Indian man sustained a closed oblique fracture of the middle third of his left femur in a motorcycle accident. Treatment included skeletal traction on a Bohler Braun's splint for two weeks followed by an insertion of an intramedullary nail progressive physiotherapy. He continued the use of crutches for seven weeks after discharge and resumed work as a municipal supervisor five months after his accident.

He returned two months later with complaints of itchiness and eruptions over the lower tibia and left ankle, the area that had rested on the splint during the previous treatment. Erythromycin 250 mg six hourly and local application of betamethasone valerate 0.1% were prescribed for a week but the lesion did not heal. Ten weeks later, it remained moist and crusty, and microscopic examination in 40% potassium hydroxide revealed hyphal fragments and yeast cells. Treatment with oral griseofulvin 500 mg daily and local application of naftifine HCl 1% was initiated. The fungus that was isolated was identified as *P. richardsiae* and later confirmed by Dr. Claude de Bievre of the Mycology Unit of Pasteur Institute, France.

Initial improvement was noted after three weeks of antifungal treatment, but the lesion recurred thereafter despite continued treatment. Although referred to a skin specialist, the patient refused and chose to

consult a general practitioner who prescribed prednisolone and chlorpheniramine maleate for one week on five occasions. When he returned to us again after a lapse of five months, induration was observed at the site of the previous lesion. The indurated area was excised, but potassium hydroxide microscopy, histopathological examination and culture all failed to confirm a fungal etiology. Itch and occasional pus persisted for up to two months after excision, but repeated attempts to culture the fungus failed. The patient was subsequently lost to follow-up.

MYCOLOGY

The isolate of *P. richardsiae* was fast-growing. Growth on Sabouraud's dextrose agar was woolly, with wide concentric zones of grey and grey-brown. Occasional colonies showed patches of orange-pink pigmentation. On potato-carrot-agar, growth was sparse with concentric zones of light and dark-grey, and radial striations in some colonies.

Microscopically, two types of sporulation were observed. Growth on both Sabouraud's dextrose agar and potato-carrot agar showed many elliptical, occasionally curved, thin-walled colourless conidia, sized 1.25 μ by 2.5 μ to 4 μ . These were borne as clusters on short protuberances along the hyphae and on tapering tips of hyphal branches. Abundant on potato-carrot agar but less on Sabouraud's dextrose agar were also many brown thick-walled spherical spores, 2.5 μ to 4 μ in diameter, produced from phialides with characteristic saucer-shaped collars (figure 1). Phialides measured about 2.5 μ at the base, up to 37 μ in length, and often occurred on looped hyphae.



Brown thick-walled round spores produced from phialides with characteristic saucer-shaped collars and thin-walled elliptical conidia

COMMENTS

Although *P. richardsiae* is most commonly associated with subcutaneous cyst, in this case, it was isolated from a cutaneous lesion. It is not a common laboratory contaminant, and its isolation together with the presence of fungal elements on direct microscopy are suggestive of an etiological role. Furthermore, trauma to the skin, a necessary condition for infections by dermatiaceous fungi could have occurred during the motorcycle accident or through pressure sores during the patient's period of immobilization on the splint or ambulation on crutches. Unfortunately, an etiological relationship and the suspicion that the cutaneous lesion could be an early lesion of a phaeomycotic cyst could not be confirmed. Nevertheless this case serves to document the existence of *P. richardsiae* in Malaysia and the possibility of infection by this fungus.

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