

中文題目：由 *Scedosporium apiospermum* 感染造成之壞死性筋膜炎

英文題目：A Rare Case of Fungal Necrotizing Fasciitis related to *Scedosporium apiospermum* infection

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Introduction:

Immunocompromised patients have higher risk of invasive fungal infection such as cryptococcosis, aspergillosis and candidiasis are well-known. However, *Scedosporium apiospermum* infection is rarely seen in clinical cases. Therefore, we presented this case to members.

Case Presentation:

A 67-year-old Taiwanese man presented to the emergency department with right hand swelling and redness for 7 days. He regularly followed up at rheumatology outpatient clinic for psoriasis and received methylprednisolone 4 mg once daily, methotrexate 2.5 mg three times per week and cyclosporine 25 mg once daily. He fell down on the ground one month ago, he got some abrasion wounds over right dorsal hand and both knees. The wounds were poorly healing. He exposed to rusted tools and dirty water without wearing gloves 10 days prior to presentation, he noted right hand painful swelling and reddish 2 days later which extended to right forearm on the next day. He visited the infectious disease outpatient clinic one day before presentation, he received vancomycin and clindamycin. The right arm got worse (Figure. 1) and the Plastic surgeon was consulted for suspected necrotizing fasciitis. Later, fasciotomy of the right dorsal hand, right dorsal forearm and right elbow was done on day of admission.

Empiric antibiotics with vancomycin 1000 mg once daily plus ciprofloxacin 400 mg once daily were initially prescribed for right upper limb necrotizing fasciitis. Mold was isolated from pus culture on day 5. Amphotericin B 30 mg once daily(0.6 mg/kg per day) was added for fungal infection. Then, we discontinued ciprofloxacin and kept vancomycin for a total of 12 days. Later, *Scedosporium apiospermum* (Figure. 2) was identified on day 7 and we adjusted amphotericin B to voriconazole with loading dose 300 mg every 12 hours (5 mg/kg) for one day then maintaining dose with 200 mg every 12 hours (4 mg/kg) on day 8. During the hospitalization, frequent surgical debridements and wound dressing were done. His wounds improved a lot after the above treatment. We kept intravenous voriconazole for a total of 23 days then adjusted to oral voriconazole 200 mg every 12 hours on day 30.



Figure. 1

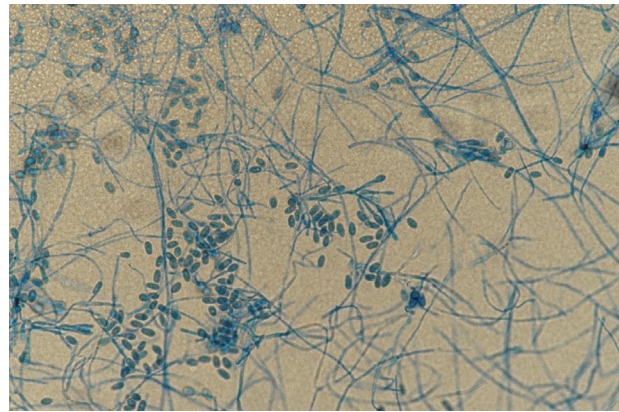


Figure. 2 Lactophenol cotton blue (LCB) stain

Discussion:

Necrotizing fasciitis is an extensive necrosis of the subcutaneous tissue and fascia which often related to bacteria such as Group A Streptococcus or mixed aerobic/anaerobic flora infection, but our case is fungal infection which is rarely seen in clinical practice. *Scedosporium apiospermum* is an ubiquitous environmental mold which was found in soil and sewage, and polluted waters. Especially, *Scedosporium apiospermum* is reported as invasive fungal disease in immunocompromised hosts.[1] It could cause mycetoma, pulmonary infection, urinary tract infection, central nervous infection, and even disseminated infections.[2,3] Effective therapy is difficult because of the antifungal susceptibility of *Scedosporium* is species-specific antifungal susceptibility[4], *Scedosporium apiospermum* is generally considered to be resistant to amphotericin B, the minimum inhibitory concentration (MIC) values of which are elevated, and the clinical response is very poor despite the use of high-dose regimens. *Scedosporium* spp. infection has lower MIC to voriconazole and micafungin[5]. Surgical debridement has been an important adjunct in treatment of soft tissue. In Taiwan, we have posaconazole and itraconazole as drug of choice if resistant to voriconazole.

Conclusion:

Voriconazole is the US FDA-approved antifungal agent for *Scedosporium apiospermum*. Surgical debridement plus antifungal agent use is recommended for angioinvasive *Scedosporium apiospermum* infection.

References:

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