

中文題目: 外瓶黴菌感染在腹膜透析腹膜炎患者的個案報告

英文題目: *Exophiala* infection in continuous ambulatory peritoneal dialysis related peritonitis and encapsulating peritoneal sclerosis: a case report

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Introduction

Exophiala spp. were founded in 1966. Although there had been several case reports in foreign countries before, relatively few case reports was from Taiwan. We report a case of continuous ambulatory peritoneal dialysis (CAPD) related encapsulating peritoneal sclerosis (EPS) with *Exophiala jeanselmei* infection.

Case history

A 45 year-old woman has history of end stage renal disease under CAPD since 2008 and hypertensive heart disease with congestive heart failure with calcified and sclerotic valves. She was admitted in June 2018 due to abdominal pain for 1 month, with purulent peritoneal fluid. CAPD related peritonitis was confirmed with elevated cell count (WBC:2070, 81% neutrophil). Peritoneal fluid culture yielded yeast-like fungus only for several times. Empirical antibiotic of ceftriaxone and fluconazole were administrated. Tenckhoff catheter was also removed and shifted to hemodialysis, and percutaneous abdominal drainage (PAD) was inserted for ascites drainage.

However, abdominal pain did not improve after 2*PAD insertion and 2 weeks of antibiotic/antifungal treatment, ascites from PAD still purulent and elevation of WBC; antifungal agent was changed to amphotericin B deoxycholate.

Abdominal computed tomography for peritonitis survey showed dirty ascites with abscess formation and some calcification change in peritoneum. EPS was highly suspected (Fig 1). Further identification of the yeast isolate showed black yeast (Fig 2) with 1-3 um clustered microconidia (Fig 3). Molecular identification confirmed *Exophiala jeanselmei* infection.

After consultation with general surgery doctor for EPS, surgery was performed for peritonitis, and the result showed chronic inflamed change of peritoneum with cocoon change of intestine and multiple mesenteric abscess (Fig 4). Her general condition improved after surgery and antifungal. Total antifungal treatment duration with voriconazole then posaconazole were 9 months.

Discussion

Most CAPD peritonitis were caused by bacteria; only 3 to 5% are due to fungi, especially *Candida* species¹. EPS is rare (0.7~13.6 per 1000 patient-years) among CAPD patients². *Exophiala* infection may present with skin infections such as tinea pedis, onychomycosis to systemic infection such as pneumonia, CAPD peritonitis, colonization of gastrointestinal tract³. In addition to antifungal agents use for fungal peritonitis, tamoxifen and prednisolone are suggested if EPS is suspected. Surgical intervention should be considered in uncontrolled infections.



Fig 1. Abd CT showed dirty ascites with abscess formation and some calcification change, suspect EPS.

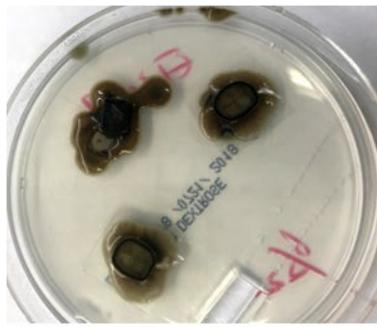


Fig 2. *Exophiala* spp. growth in the SDA culture plate.



Fig 3. Lactophenol cotton blue stain of isolates, which was confirmed as *E. jeanselmei* by molecular method.



Fig 4. Cocoon change of intestine finding in the surgery.

References

1. Changes in causative organisms and their antimicrobial susceptibilities in CAPD peritonitis: a single center's experience over one decade; *Perit Dial Int.* 2004;24(5):424.
2. Encapsulating peritoneal sclerosis: incidence, predictors, and outcomes; *Kidney Int.* 2010;77(10):904
3. Clinical Spectrum of *Exophiala* Infections and a Novel *Exophiala* Species, *Exophiala hongkongensis*; *J Clin Microbiol.* 2013 Jan; 51(1): 260–267