Case Report

Trichosporon beigelli fungaemia in a patient with haemodialysis

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Introduction

Trichosporonosis is noted increasingly in immunocompromised and neutropenic patients. Disseminated trichosporonosis is a life-threatening condition. We observed systemic Trichosporon infection in a patient on maintenance haemodialysis.

Case

A 76-year-old male patient with a history of pulmonary tuberculosis, coronary artery disease and polycystic kidney disease with chronic renal insufficiency had been treated by maintenance haemodialysis three times per week for 3 months before admission. He had progressive loss of consciousness and intermittent low grade fever before he was admitted to a local hospital and treated with broad spectrum parenteral antibiotics for 2 weeks. His condition deteriorated and he was transferred to our hospital.

The initial physical examination revealed coma (Glasgow coma scale: E1M1V1), body temperature 37.8°C, heart rate 102 per min, respiration 16 per min, blood pressure 135/90 mm Hg. Haemoglobin was 8.3 g/dl, platelet 252 × 10³/µl, white cell count 13600/µl, blood urea nitrogen 167 mg/dl, creatinine 7.1 mg/dl, calcium 8.4 mg/dl, phosphorus 6.6 mg/dl, sodium 133 mmol/l, and potassium 5.0 mmol/l. His initial chest X-ray showed no active lung lesion. On the 3rd day, 'yeast-like' organisms were grown in blood cultures [1]

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and catheter tip cultures from the left femoral vein double lumen catheter which has been inserted 2 months previously. Sputum cultures were negative. The organism was identified as *Trichosporon beigelii* by microscopy (Figure 1). The patient was treated with amphotericin B (40 mg/day) in addition to parenteral antibiotics.

On day 15, the patient’s consciousness improved. He could communicate with family members. On day 19, he developed fatal hyperkalaemia (6.9 mmol/l).

**Discussion**

*Trichosporon beigelii* belongs to the normal flora of the skin and gastrointestinal tract [2], occasionally it causes mild superficial infection of the head and pubic hair shafts in healthy adults. In the immunocompromised host, it may also cause potentially life-threatening disseminated infection. This is seen most commonly in severely neutropenic patients after chemotherapy for haematological malignancies [3], or after bone marrow transplantation [4], or patients with the acquired immunodeficiency syndrome. Several cases of fungal peritonitis in patients on CAPD.

In the present case without neutropenia, predisposing conditions may include advanced age, poor nutrition and insufficient haemodialysis. The long term indwelling femoral vein catheter may have constituted the portal of entry. The presenting symptoms of this patient were only disturbed consciousness and intermittent low grade fever with stable vital sign. The common presentation described in literature, comprises pneumonia, peritonitis, skin lesion or septic shock.

Disseminated trichosporonosis should be suspected in immunocompromised patients when a febrile condition does not improve after prolonged treatment with broad spectrum parenteral antibiotics. *Trichosporon beigelii* had unique morphological characteristics (Figure 1) including pseudohyphae, blastoconidia with additional arthroconidia, and some hyphae with septum [5].

The treatment of choice for trichosporonosis is amphotericin B, but strains resistant to amphotericin B in vitro have been described [6,7]. Combination therapy, i.e. amphotericin B and azoles, may give better result than amphotericin B or azoles alone.

**References**


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