Peritonitis and Intra-abdominal Abscess by Trichoderma Longibrachiatum in a Patient Undergoing Continuous Ambulatory Peritoneal Dialysis (CAPD)

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Introduction : Although fungal peritonitis in patients undergoing CAPD is uncommon, it is a serious complication of CAPD, due to its high mortality and morbidity rates; and it is the most important cause of treatment failure in patients on long-term peritoneal dialysis. Trichoderma species are common plant saprophytes and wood-decaying fungi. Four of nine species which have been described as members of this genus were identified as causes of human disease.

Case Report : A 67-year-old male with end-stage renal disease due to diabetes was admitted to our hospital because of a one-day history of abdominal pain and cloudy peritoneal fluid. There were tenderness and rebound tenderness of the entire abdomen. Once peritoneal fluid culture and blood culture into blood culture media had been performed, intraperitoneal cefazolin and tobramycin were administered immediately. On the 4th day of incubation, septate hyphal elements with irregular forms were seen on the culture media. Microscopic findings showed that condiophores arise at right angles to the hyphae and may be solitary or form tufts. Organism was tentatively identified as a species of Trichoderma. As soon as this result was reported, amphotericin B was started intravenously. In spite of seven days of treatment with amphotericin B, the peritoneal effluent color remained turbid and the patient had persistent abdominal pain. The catheter was removed and hemodialysis was started. Abdomen CT revealed fluid collections with a peripheral enhanced wall in the right 5.6 cm in the longest diameters. Repetitive ultrasound-guided aspiration was performed in the RLQ lesion. Drained fluids were cultured at blood culture media and same organism as peritoneal fluid was seen at culture media. After three weeks of treatment with antifungal agents and drainage, clinical symptoms improved and the sizes of the fluid collections in the RLQ was decreased on follow-up ultrasonography. The patient continued on hemodialysis without further complications.

Conclusion : Early suspicion of fungal peritonitis, the use of appropriate anti fungal agents, and catheter removal, seem to be necessary for the treatment of peritonitis caused by Trichoderma longibrachiatum. If there was no clinical response to the above treatment, we would have suspected an intra-abdominal abscess and would have performed a CT scan and provided the appropriate drainage.