Fusarium peritonitis in a patient on peritoneal dialysis

Dear Sir,

Fusarium species are increasingly implicated in opportunist human infections, such as sinusitis, pneumonia, endophthalmitis, cutaneous infections, peritonitis, osteomyelitis, cerebral abscesses, endocarditis, cystitis, and disseminated disease, particularly in immunodepressed patients. Although fungi are rarely a cause of peritonitis, *Candida albicans* being the most common, the possibility should be considered of isolating other genera, such as *Fusarium* [1-6]. This report presents a new case of peritonitis by *Fusarium oxysporum* in a patient on continuous ambulatory peritoneal dialysis (CAPD).

The patient is a male of 57 years, diagnosed with chronic renal insufficiency in 1996 and since then attended on a CAPD program, who was admitted to receive a renal transplant from a cadaver. In the course of the CAPD, he did not develop any episode of peritonitis and, on admission for the transplant, did not present symptomatology. Following pretransplant protocol, peritoneal fluid was taken for count cell and culture; this was of apparently normal aspect. In the count cell, 270 WBC/mm^3 (with 70% neutrophils) were observed. The culture was positive in aerobiosis blood culture flasks (ESP, Difco) at 48 h, showing fungal elements by Gram's staining. Subculture on Sabouraud with chloramphenicol agar evidenced rapid growth of colonies with white aerial mycelium and orange sporodochia (Figure 1); over time, the whole colony took an orange aspect, including the reverse. Direct microscopic examination revealed abundant microconidia, mostly non-septate, ellipsoidal to cylindrical, straight or often curved, forming clusters and generally growing out of short and lateral monophialides. The macroconidia were fusiform, slightly curved, with no more than three septa, and had developed at the extremities of slender hyphae. The fungus was identified as *F. oxysporum*.

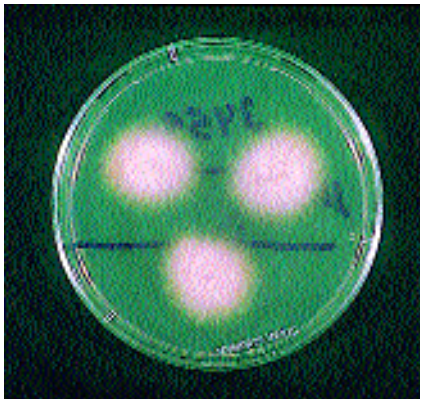

Figure 1. *Fusarium oxysporum* colonies on Sabouraud with chloramphenicol agar.

Testing the sensitivity to antifungal agents by Sensititre system (Accumed International, UK) gave the following result: 5-fluorocytosine >64 µg/ml; amphotericin B 1 µg/ml; itraconazol 0.06 µg/ml; ketoconazol 0.125 µg/ml; fluconazol 0.5 µg/ml. The Tenckhoff catheter was withdrawn and after culture of them *F. oxysporum* was isolated. During the implantation of the renal graft the peritoneal membrane was torn, with a leaking of fluid; from which *F. oxysporum* was again isolated. Despite the absence of symptomatology of peritonitis, amphotericin B, 50 mg/day intravenously, was administered for 14 days (cumulative dose: 700 mg). Two months later, the patient was still asymptomatic.

Peritonitis is a frequent complication of CAPD, in which species of the genus *Fusarium* are occasionally reported. The fungus has, to some degree, capacity to adhere to the catheter, and this may justify the catheter's removal [4-6]. Infection by *F. oxysporum* in renal transplant was described in 1979 [1] and the first case of peritonitis on CAPD in 1994 [2]. Although the treatment is not well-established, amphotericin B, either alone or in association with 5-fluorocytosine, is the recommended treatment for infection with *Fusarium* [3,7]. It is remarkable in our case and others publications [4,5], that the fungus presence in peritoneal fluid did not present in a specific symptomatology. The microbiological isolation of saprophytic fungi in peritoneal fluid is fundamental for establishing the correct diagnosis and treatment.

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Congresos

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10-13 de Abril de 2000. *9th International Congress on Infectious Diseases.* (Buenos Aires, Argentina).
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28-31 de Mayo de 2000. *10th European Congress of Clinical Microbiology and Infectious Diseases* (Estocolmo, Suecia).
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Programa:
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25 de Noviembre: Epidemiología y taxonomia de dermatofitos. Diagnóstico etiológico de las dermatofitosis. I (Dr. Cabañes), Epidemiología y taxonomia de dermatofitos. Diagnóstico etiológico de las dermatofitosis. II (Dra. Rubio), Tratamiento de las micosis sistémicas (Dr. Quindós), Mecanismos de resistencia a los antifúngicos I (Dra. Rubio), Mecanismos de resistencia a los antifúngicos II (Dra. Espinel-Ingroff), Nuevos agentes antifúngicos (Dr. Carrillo), Introducción a las prácticas (Dra. Espinel-Ingroff), Prácticas: determinación de la cmi a las 24 horas (NCCLS y otros métodos)
26 de Noviembre: Importancia de las curvas de letalidad en el estudio de los antifúngicos (Dra. E. Cantón), Interpretación de resultados en las pruebas de sensibilidad y su importancia clínica (Dra. Espinel-Ingroff), Prácticas: determinación a CMI por los distintos métodos a las 48 horas. Comparación y discusión de resultados (Dra. Espinel-Ingroff), Clausura del curso (Dr. Gobernado).

Grupos de trabajo

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