TABLA 1. **Distribución de enterobacterias portadoras de betalactamasas de espectro extendido (BLEE) por especie y tipo de muestra e incidencia relativa de aislados portadores de BLEE respecto al total**

Muestra	Enterobacterias						
	Escherichia coli	*Klebsiella pneumoniae*	*Klebsiella oxytoca*	*Salmonella enterica*	*Enterobacter cloacae*	*Providencia stuartii*	Total (%)
Orina	241	2	2	1	1	1	248 (77,77)
Sangre	9	0	1	0	0	0	10 (3,13)
Muestras respiratorias	6	1	0	0	0	0	7 (2,20)
Heces	0	0	0	6	0	0	6 (1,88)
Líquidos orgánicos	4	0	0	0	0	1	5 (1,56)
Exudados inflamatorios	37	1	1	0	0	0	39 (12,2)
Otros	4	0	0	0	0	0	4 (1,22)
Total	***301***	***4***	***4***	***7***	***1***	***2***	***319***
Incidencia relativa (%)	1,85	0,25	0,47	0,46	0,09	0,82	

mos 194 aislados (61%) de pacientes ambulatorios y 125 (39%) de hospitalizados. Estos últimos se localizaron en áreas médicas (44%), quirúrgicas (23%), unidades de cuidados intensivos (12%), pediatría (7%) y otros servicios (14%). En la tabla 1 se recogen las especies portadoras de BLEE y la muestra de procedencia, así como el número y la incidencia relativa de cepas portadoras de BLEE por especie. Las dos cepas de *P. stuartii* se obtuvieron de orina y herida quirúrgica del mismo paciente con una diferencia de 2 meses. Las salmonelas fueron de origen extrahospitalario y de los serotipos Virchow (4) y *Typhimurium* (3). En *E. coli*-BLEE, se observaron 4 fenotipos de resistencia: 52 cepas resistentes a cefotaxima (CIM > 8 mg/l) y a ceftazidima (CIM > 16 mg/l) (CTX^R-CAZ^R); 234 cepas (CTX^R-CAZ^S), 11 cepas (CTX^S-CAZ^R) y 4 cepas con CIMs entre 2 y 8 mg/l (CTX^S-CAZ^S). Los porcentajes de resistencia a otros antibióticos en *E. coli*-BLEE y los porcentajes globales de resistencia fueron los siguientes: cotrimoxazol (60,8 y 40,3% [p < 0,05]), ácido nalidíxico (83 y 45% [p < 0,05]), ciprofloxacino (55,1 y 26,6% [p < 0,05]), gentamicina (17,3 y 8,8% [p < 0,05]), tobramicina (11 y 5,2% [p < 0,05]) y fosfomicina (1 y 1,8%). La incidencia relativa de *E.coli*-BLEE en pacientes hospitalizados y ambulatorios por años fue: 1,3 y 0,7% en 2001; 2,6 y 0,9% en 2002; 1,8 y 1,1% en 2003, y 5,6 y 3,4% en 2004. *E. coli*-BLEE aumentó de manera muy significativa en 2004 respecto a los años anteriores tanto en muestras de pacientes hospitalizados como ambulatorios, de modo que supuso el 3,94% de los aislados clínicos de esta especie. Los aislados de *E. coli*-BLEE mostraron porcentajes de resistencia a ácido nalidíxico, ciprofloxacino, gentamicina, tobramicina y cotrimoxazol, significativamente mayores que los de la especie en el mismo período.

Agradecimientos

Este trabajo ha sido financiado en parte por MSD España, S.A. con el proyecto P2005-0056.

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Cerebral phaeiohyphomycosis due to *Cladophialophora bantiana*

Mr. Editor: we present the case of a woman (41 years), diagnosed of familiar amyloidosis type I with hepatic and renal involvement. Orthotopic liver transplantation was performed in May 1999. One year later liver retransplantation was necessary due to an ischemic lesion following hepatic artery thrombosis. The patient was on inmunosupressor therapy, (tacrolimus [4 mgr daily] and deflazacort [9 mgr daily]). Six months later the patient comes to emergency because of vomiting and level of awareness declines. Examination of the patient upon entrance reveals that she is in a state of stupor, though able to respond verbally to simple orders and does not present any motor deficits. Initial blood tests shows: moderate leukocytosis (12.820/mm^3) and anemia (Hb = 10.8 g/dl) and mild hiperbilirrubinemia (4.2 ml/dl) due to direct bilirrubine (2.9 mg/dl) and GGTP (185 UI/L). Cerebral tomography is performed with and without contrast matter (fig. 1). It reveals ring-like lesion associated with a hyper dense peripheral zone that in turn is surrounded by hypo dense areas in

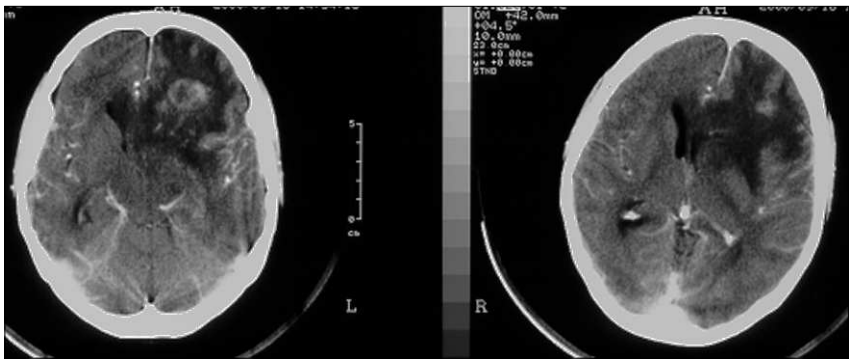

Figura 1. Cerebral tomography without contrast.

the frontoparietal zone. The diagnosis was cerebral abscess and the patient undergoes surgery. The Gram stain and direct examination (15% KOH) of the material removed shows presence of septate fungal hyphae. Initial post operation treatment was liposomal amphotericin and perioperatory antibiotic prophylaxis with cefazolin. Semi-comatose condition of the patient persists postoperatively (GCS 9).

Routine culture of bacteria and fungi was performed on surgical samples. After 2 weeks a black velvety fungus with reverse olivaceous black is isolated in Saboureaud agar plates. The morphology of fungus is sparsely branched, long chains of one-celled blastoconidia from hypha-like, pale olivaceous conidiophores. The fungus was identified as *Cladophialophora bantiana.* The identification was confirmed by the Instituto de Salud Carlos III, Majadahonda, Madrid. Other cultures (blood, urine and bronchial needle puncture) were negative under microscopic observation. Delayed *Pseudomonas aeruginosa* growth was detected in the bronchial sample.

Three days after admission, the patient develops an acute abdomen, right lung infiltrates and distributive shock. Abdominal ultrasonography was performed and findings suggest possible mesenteric ischemia. Surgery is not performed given the extremely poor general condition of patient and her hemodynamic instability. Patient died in shock and multiple organic dysfunction. After the necropsy the culture of both lungs, pleural and ascitic fluid were positive for *Ps aeruginosa* and *Enterococcus faecalis*. The peripheral blood culture was negative. In the brain only *Ps aeruginosa* was found. *C bantiana* was isolated solely in the left lung.

Two types of *C bantiana* infection have been described clinically in organ transplants recipients: skin infections and systemic and soft tissue infections[1]. The invasive systemic disease due to generally presents with cerebral abscess and its lesions are usually located on the fronto-parietal lobe[2-4], occasionally on the temporoparietal lobe and there are two cases described in cerebellum[5]. Experimental studies in animals have shown that the respiratory tract may be the mode of entry to CNS infections. In any case, the majority of cases of cerebral phaeohyphomycosis reported in the literature there is no evidence of sinus or lung disease[6]. In our patient it is very likely that the infection was of a pulmonary source given that in the post mortem studies *C bantiana* was isolated in the left lung. It was not isolated from the brain sample of necropsy material, probably due to the surgical resection more than to the antifungal agent. However, in the literature there are two cases as successfully treated with antifungal treatment[1,7]. Optimum treatment for dematiaceous fungi is controversial. Complete drainage and surgical resection were the most important therapeutic intervention of a pattern of treatment in prolonging survival in 26 cases on non transplanted patients[5]. Systemic antifungal therapy did not improve survival[8]. There are not randomized studies that probe the optimum duration of this therapy that ranges from 2 to 12 months. Mortality in *C bantiana* causing CNS lesions is high: 65% with surgery and approximately 100% when is not performed[9]. The combination of amphotericin B, 5-FC and itraconazole was associated with improved survival, although there were relatively few cases in which this triple combination was used[10]. Itraconazole and voriconazole have the most consistent and potent activity, although were not independently associated with improved outcomes[10]. Echinocandins (e.g. caspofungin), which act on the fungal cell wall, do not appear to be as active in vitro as are the azoles, and their role in the treatment of phaeohyphomycosis is unclear at present[10]. In our case, death was due to multiple organic dysfunction of a bacterial and fungus origin, 48 hours postoperatory and having begun antifungal treatment hence it is impossible to assess efficacy. Although this is the first case of *C bantiana* infection reported in Spain, in reviewing the literature[10], it is clearly indicated that at present it is mandatory to keep in mind the possibility of dematiaceous fungi in general and *C bantiana* particularly as infectious agents.

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