CORRESPONDENCE

Nosocomial catheter-associated *Flavobacterium odoratum* bacteraemia in cancer patients

Flavobacterium odoratum is known to be a soil and plant saprophyte [1]. While there are numerous reports of life-threatening infections (septicaemia, meningitis) caused by *F. meningosepticum* only two due to *F. odoratum* have been reported [2]. The virulence of *F. odoratum* is, therefore, uncertain [1–3].

Here we report four cases of catheter-associated polymicrobial bacteraemia caused by *F. odoratum* and another organism (Table 1). Two of four cases were caused by *F. odoratum* and *C. albicans* and two by *F. odoratum* and coagulase-negative staphylococci (CNS). All strains were obtained by routine blood culture and identified with the Vitek Jr. system (Vitek Systems, bioMerieux). Two patients were hospitalised on the leukaemia ward, one in another ward for lymphomas and one in a ward for patients with solid tumours, all in a single cancer institution (National Cancer Institute). Fingerprinting was not done, as the first case occurred in 1992, the second in 1994, the third in 1995 and the fourth in early 1997. All strains were isolated from blood cultures. Three of four patients were neutropenic, and in three, breakthrough bacteraemia appeared despite prophylaxis with ofloxacin (200 mg twice daily) even though all strains of *F. odoratum* were susceptible to ofloxacin. All four bacteraemias were catheter-associated, and after removal of the catheter, symptoms (i.e., fever) disappeared. Three patients were treated with antimicrobial agents and one with catheter removed only. In the two cases in which CNS were isolated, vancomycin was used in monotherapy, even though vancomycin has no

in-vitro activity against *Flavobacterium* spp. In patient no. 1 only, amikacin and ceftriaxone were administered in addition to catheter removal.

Patients details are outlined in Table 1. All strains except one were susceptible to most antimicrobial agents tested (gentamicin, amikacin, ofloxacin, ciprofloxacin, netilmicin, tobramycin, azlocillin). Only isolates from patient no. 4 were resistant to third-generation cephalosporins.

In conclusion, *F. odoratum* may cause systemic infection as a breakthrough bacteraemia; however, its virulence seems to be relatively low compared with that of *F. meningosepticum*, as all patients were cured following catheter removal.

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References

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Table 1. Four cases of *F. odoratum* bacteraemia in cancer patients

Case no.	Age/sex	Underlying disease	No. of positive blood cultures	Neutropenia <500 at time of bacteraemia	Central venous catheter insertion	Source of bacteraemia	Prophylaxis	Polymicrobial	Therapy	Outcome
1	42/M	NHL	4	+	+	Infected catheter	Ofloxacin	+ <i>Candida</i> spp.	Amikacin + ceftriaxone + catheter removal	Cured
2	60/F	Solid tumour (gastric Ia)	3	–	+	Infected catheter	None	+ <i>Candida</i> spp.	Catheter removal	Cured
3	31/M	AML	5	+	+	Infected catheter	Ofloxacin	+ CNS	Catheter removal vancomycin 1 g bd 7 days	Cured
4	20/F	AML	3	+	+	Infected catheter	Ofloxacin	+ CNS	Catheter removal vancomycin 1 g bd 7 days	Cured

NHL, non-Hodgkins lymphoma; AML, acute myeloid leukaemia.