

First Isolation of *Burkholderia cepacia* from a Deep Neck Abscess in a Diabetic Patient Successfully Treated with Hyperbaric Oxygen

We read with interest the paper by Mukhopadhyay et al. describing two novel clinical presentations of *Burkholderia cepacia* infection (4). We report here the isolation of *B. cepacia* from patient with a deep neck abscess complicated by mediastinitis.

A 77-year-old diabetic man was transferred to the Division of Metabolic Diseases, Department of Clinical and Experimental Medicine, University of Padua, from an intensive care unit where he had been staying because of hyperosmolar ketotic coma complicated by new-onset atrial fibrillation and urosepsis due to *Staphylococcus aureus*. A central venous catheter was promptly removed and submitted for culturing; *Candida albicans* and *Pseudomonas aeruginosa* were cultured. The physical examination was unremarkable except that a solid inferior-anterior and left cervical swelling of about 8 by 4 cm was observed. A chest X-ray was normal. On day 3 the patient developed progressive dysphonia: laryngoscopy showed extrinsic compression of the upper airways, and an ultrasound tomography of the neck suggested the presence of an abscess. Antibiotic therapy with fluconazole, ciprofloxacin, cefepime, and metronidazole was started. A computerized-tomography scan of the head, neck, and mediastinum showed a gaseous infectious tissue reaching the superior-anterior mediastinum. Therefore, the patient underwent emergency, open surgical drainage. Cultures from the drained fluids grew *S. aureus* and multisensitive *B. cepacia*. Although the gaseous component could also have been due to *S. aureus*, anaerobic coinfection was suspected. Antibiotic therapy was continued with metronidazole, cefepime, and teicoplanine. Daily hyperbaric oxygen therapy was started, and it led to a strong improvement in the patient's condition. During the following days, the patient's condition improved slowly and progressively. Subsequent computerized-tomography controls showed reduced volume of the swollen tissue with decreased gaseous component. Results of an ultrasound-guided fine-needle aspiration, performed 2 weeks after the surgery, were negative, suggesting that the infection had resolved.

Deep neck infections are serious and sometimes life-threat-

ening conditions. Diabetes confers particular susceptibility to head and neck infections (5), atypical gas-forming infections, and deep soft-tissue infections (3) and has been recognized as a disease commonly underlying *B. cepacia* infections (1). However, we describe what is to our knowledge the first case of a cervico-mediastinal abscess in a diabetic patient without overt immunodeficiency. As environmental contamination was ruled out, we could not determine clearly the source of the infection, but probably it was the central venous catheter. In this case, hyperbaric oxygen, administered because of the presumed anaerobic coinfection, may have helped the successful outcome (2).

REFERENCES

1. Huang, C. H., and W. W. Wong. 2001. Characteristics of patients with *Burkholderia cepacia* bacteremia. *J. Microbiol. Immunol. Infect.* **34**:215–219.
2. Jordan, J., S. Piotrowski, G. Piotrowski, and M. Kwiatek. 1996. Hyperbaric oxygen therapy in case of the neck diffuse phlegmon with very hard clinical course. *Otolaryngol. Pol.* **50**:8–16.
3. Joshi, N., G. M. Caputo, M. R. Weitekamp, and A. W. Karchmer. 1999. Infections in patients with diabetes mellitus. *N. Engl. J. Med.* **341**:1906–1912.
4. Mukhopadhyay, C., A. Bhargava, and A. Ayyagari. 2004. Two novel clinical presentations of *Burkholderia cepacia* infection. *J. Clin. Microbiol.* **42**:3904–3905.
5. Tierney, M. R., and A. S. Baker. 1995. Infections of the head and neck in diabetes mellitus. *Infect. Dis. Clin. North Am.* **9**:195–216.

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