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## Bacteremia and sepsis due to *Prevotella oris* from dentoalveolar abscesses

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### Electronic Supplementary Material

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Primary bacteremia leading to sepsis contributes substantially to mortality in intensive care patients. Predominant pathogens are coagulase-negative staphylococci, *S. aureus*, *P. aeruginosa* and enterococci [1]. We report on a patient with massive tooth decay, who suffered from “dentistrophobia” and who had an oral intake of

2 g of acetylsalicylic acid daily for pain therapy. The patient was admitted to the intensive care unit (ICU) with acute unconsciousness due to spontaneous intracerebral bleeding in the cerebellar region. After orotracheal intubation and insertion of an intraventricular catheter for measurement of intracranial pressure and drainage of blood-laden cerebrospinal fluid, the patient was sedated and artificially ventilated. Five days after admission to the ICU, clinical signs of an inflammatory syndrome were observed (fever, elevation of leucocyte counts, elevated C-reactive protein level) so we immediately began conducting further tests to determine the cause (microbial analysis of cerebrospinal fluid, endotracheal secretion, urinary and stool probes, change of central venous and arterial catheter, and two sets of blood culture). The probes showed negative results and we began to apply an antimicrobial agent empirically (imipenem) via central venous catheter, since the inflammatory syndrome exacerbated to septic shock with massive hemodynamic instability demanding continuous high-dose catecholamine infusion. Finally, analysis of two blood cultures showed massive bacteremia with *Prevotella oris*, an anaerobic, gram-negative pathogen which can be found in odontogenic abscesses [2]. After extraction of all teeth and injection of metronidazole intravenously, septic shock syndrome ceased rapidly and the patient’s hemodynamic condition stabilized within hours.

Odontogenic anaerobe infections are present in 40% of patients with dental caries [3] with a dominance of the strains *Prevotella* and *Porphyromonas*, which often show resistance to penicillin. To our knowledge, this is the first report on bacteremia and sepsis due to dentogenic

pathogens. We conclude that the localization of infected tissue in ICU patients with sepsis syndrome should include oral focal infection, especially in those cases in which no “traditional” focus can be found and inflammatory syndrome persists despite application of broad-spectrum antibiotics.

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