Odontogenic bacteremia in a patient complaining of fever with shaking chills: a case report

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Introduction:
Of the bacteria that yield positive blood cultures, about 5\% are anaerobic, 2\% of which are caused by intraoral infection. We report a case with repeated shaking chills diagnosed as an odontogenic infection with bacteremia of Parvimonas micra and Prevotella sp. requiring tooth extraction in which we experienced the utility of bacteriologic examination in the clinical course.

Case presentation:
A 69-year old ADL independent man presented with shaking chills since 3 days prior. On admission, vital signs were BP 127/69mmHg, HR 101bpm, RR 18/min, BT 37.4°C, with dental caries and halitosis observed. WBC was 12120/μL, CRP was 0.51mg/dL. We submitted blood cultures but postponed antibiotic administration until the source of the infection was detected. On day 2, we consulted a dentist to assess the oral manifestations and tooth extraction was deemed necessary. On day 3, anaerobic blood cultures came back positive and Gram staining showed chain-like positive cocci whose properties suggested an obligate anaerobic bacterium in the oral cavity. Gram negative bacilli were also later detected from anaerobic bottles and treated with antibiotics. On day 6, the blood culture bacteria were identified as Parvimonas micra and Prevotella sp. Infective endocarditis was not apparent. He was discharged on day 9 and administered antibiotics for a total of 14 days including oral antibiotics. A nearby dentist was asked to perform tooth extraction.

Discussion:
Shaking chills are regarded as a sign of bacteremia. Bacteriological evaluation including Gram staining is useful for clinical reasoning and management when blood cultures are positive. In cases of intraoral insufficiency in febrile patients with an unknown infection source, dental intervention including tooth extraction should be requested with thought to dental infection induced bacteremia.