Bacteroides fragilis Isolated from Blood Culture. 
First Case In Our Hospital 

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Abstract
The latest guidelines indicate that both an aerobic and an anaerobic bottle should be present in a blood culture set. In our laboratory, aerobic and anaerobic bottles have been used together for more than 10 years. Here we report a case of Bacteroides fragilis isolated from blood culture of an 88-year-old patient with colon adenocarcinoma. Although this isolate could not be shown to be the causative agent of true bacteremia, it being the first anaerobic agent isolated from blood culture in our laboratory, we aimed to draw attention to the importance of using anaerobic blood culture bottles in blood culture sets.

Keywords: Bacteroides fragilis, blood culture, anaerobic

Case Presentation
An 88-year-old man with Alzheimer disease admitted to our hospital with complaints of somnolence, general impairment and decreased oral intake.

He was hospitalized with the pre-diagnosis of acute renal failure as his blood sodium and creatinine were detected as 154 mEq/L and 2.9 mg/dL, respectively. After hospitalization, pneumonia was diagnosed, moxifloxacin was prescribed, and piperacillin-tazobactam was added to the therapy on the fifth day of hospitalization due to his ongoing fever. Urine and blood cultures were performed. There was no growth in urine culture and Staphylococcus intermedius was isolated from the blood culture. Daptomycin was added to the therapy. Colonoscopy and biopsy was performed on suspicion of
colon cancer, when gastrointestinal bleeding was detected. On the seventh day of meropenem and fifth day of daptomycin, another set of blood culture (1 aerobic, 1 anaerobic) was obtained.

The blood culture sample was incubated in a Bactec FX200 (BD, USA) automated system. After 4 days of incubation, a positive signal was detected in the anaerobic bottle. Gram stain and subcultures were performed. Gram-negative thin bacilli were observed by Gram stain whereas no growth was observed on the blood and EMB agars which were incubated aerobically. As the specimen from the anaerobic bottle was again subcultured into an aerobic and anaerobic bottle and same result was obtained, presence of an anaerobic agent was suspected and anaerobic bottle was sent to another center for further anaerobic identification. After anaerobic isolation, the strain was identified as \textit{B. fragilis} by MALDI-TOF MS (Bruker, Germany). Pathology of an anaerobic bottle has been questioned previously, in recent studies and guidelines the use of both aerobic and anaerobic bottles has been mentioned meaningfully both in terms of detecting contaminants, anaerobic and facultative anaerobic bacteria (Akyar and Yaman, 2011). In our laboratory we have been using both aerobic and anaerobic bottles together for more than 10 years.

Although this isolate could not be shown to be the causative agent of true bacteremia, it being the first anaerobic agent isolated from blood culture in our laboratory, we aimed to draw attention to the importance of using anaerobic blood culture bottles in blood culture sets.

**References**


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