FIRST REPORT OF INFECTION DUE TO *DYSGONOMONAS* SP IN LATIN AMERICA

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INTRODUCTION

The genus *Dysgonomonas* was recently created to accommodate a group of facultative anaerobic fastidious Gram-negative coccobacilli formerly designated CDC group DF-3. To date, few cases of infection due to this bacterium have been reported such as cholangitis, abscesses and ascites in patients with pancreatic and colon cancer. The objective of this study was to describe the recovery of *Dysgonomonas* sp from an intra-abdominal abscess in a patient with peritonitis.

METHOD

Medical records were reviewed to collect information about patient demographic characteristics, antimicrobial treatment and outcome. Bacterial identification was performed using rDNA 16S gene sequencing and GenBank was used to access the sequences deposited to date. Susceptibility tests were performed using Etest with Mueller Hinton agar supplemented with 5% sheep blood.

RESULTS

A 63-year-old man with the diagnosis of lymphoblastic leukemia underwent chemotherapy and developed febrile neutropenia and septic shock. He was treated with meropenem and vancomycin until the results of blood cultures were made available. A cefepime susceptible *Escherichia coli* was isolated and the patient received 10 days of cefepime. At the end of the treatment, the patient presented with abdominal pain and signs of peritonitis.

The patient developed a new septic shock and meropenem (1000 mg 8/8 hours in a 3-hour infusion) plus vancomycin (1000 mg 12/12 hours) were started. He was submitted to an exploratory laparotomy surgery and a colectomy plus ileostomy were performed due to colon perforation. An abdominal CT scan was performed due to persistence of fever and an intra-abdominal abscess was detected. The patient was submitted to surgical drainage and polymyxin B (650,000 IU 12/12 hours) was added to the antimicrobial treatment after the procedure. Gram stain revealed a Gram-negative coccobacilli and yeast cells. The yeast was identified as *Candida krusei* by the Vitek2 system, but the coccobacilli could not be identified bu this system. The rDNA16S gene sequencing identified the gram-negative coccobacilli *Dysgonomonas capnocytophagoides* with 99.3% similarity to the U41355 deposit; however as the similarity index was inferior to 99.5% it was not possible to confirm the identification to species level. The minimum inhibitory concentration were >32mg/L, 24 mg/L, 2 mg/L e 0.032 mg/L respectively to meropenem, ceftriaxone, cefepime, chloramphenicol and tigecycline.

CONCLUSIONS

To the best of our knowledge, this is the first report of *Dysgonomonas* sp infection in humans in Latin America. It is worrisome the fact that the isolate showed high MICs to β-lactams, including meropenem.