Acinetobacter baumannii and Enterobacter cloacae resistant to carbapenems in a single patient: a case study

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Patients presenting infection or colonization caused by more than one bacterial species has become common, particularly in Intensive Care Units (ICU). Here, we present a case of a patient admitted to the ICU who showed Acinetobacter baumannii isolated in a urinary sample and Enterobacter cloacae isolated in a rectal swab. A 65 year-old woman was referred to our hospital complaining about a large abdominal mass, along with oliguria and constipation. Physical examination showed a mass palpable throughout the whole abdominal-pelvic region. The CT results showed left pleural effusion along with dilated uterus, with liquid accumulation in the abdominopelvic region, requesting an exploratory laparotomy for biopsy. Then, the patient cultures evidenced A. baumannii and E. cloacae, requiring to the staff to initiate Polymixin B (150 mg) intravenously. The beginning of respiratory insufficiency due to pneumonia after 15 days prompted the staff to initiate Meropenem (500 mg) and Vancomycin (500 mg) intravenously. After 9 days, the oncology staff decided that the patient was stable enough to be transferred to another hospital, to receive palliative care. The bacterial were identified by Vitek®2 and confirmed by MALDI-TOF MS. The susceptibility testing demonstrated A. baumannii and E. cloacae were resistant to imipenem, meropenem, ceftazidime, cefalotina, gentamicin, cefepime, ciprofloxacin, tigecycline, piperacillin/tazobactam, amikacin and as was sensitive only to polymyxin and colistin. A. baumannii and E. cloacae showed carbapenem hydrolysis by MALDI-TOF MS. PCR was performed to confirm the presence of ISAba1 upstream blaOXA-23 gene and blaOXA-51 in A. baumannii, while E. cloacae presented blaKPC-2 gene. Early and accurate detection, in conjunction with effective infection control measures, are of utmost importance to control the spread of multidrug-resistant strains.

Keywords: Carbapenem-resistant, ICU, Drug Resistance

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