TITLE: ISOLATION OF ESBL-PRODUCING *KLEBSIELLA* SPP. IN A DOG WITH OSTEOMYELITIS AFTER RECONSTRUCTION SURGERY

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ABSTRACT:
The production of extended spectrum β-lactamases (ESBLs) is an important mechanism of resistance in enterobacteria, since they are able to hydrolyze penicillins, cephalosporins of all generations and monobactams, minimizing the therapeutic options. In the present work we reported the isolation of *Klebsiella* spp. in plaque and orthopedic pin used in surgery of a dog's thoracic limb and its antimicrobial sensitivity. A 9-month-old female dog, Poodle breed, was treated at the Small Animal Surgical Clinic of the University Veterinary Hospital (HVU) of the Federal University of Campina Grande (UFCG), Patos-PB campus, with a history of radio and ulna fractures. The animal underwent surgery for radio and ulna osteosynthesis using the plate-rod technique. A treatment with meloxicam (0.1 mg/kg once a day for 4 days), amoxicillin + clavulanic acid (20 mg/kg twice a day for 15 days), tramadol (6 mg/kg three times a day for 7 days), and gabapentin (10 mg/kg twice a day for 30 days) was started. Twenty-two days after surgery, the owner was admitted to the Small Animal Clinic, as the animal had mucopurulent secretion at the site of the surgery, which, after a radiographic examination, osteomyelitis was diagnosed. Further surgery was performed to remove the implant and the plaque and pin were sent to the Laboratory of Microbiology (LM) of the HVU. Swabs of these materials were cultured and *Klebsiella* spp. was isolated. The in vitro susceptibility test by the disk diffusion technique was used to verify the resistance profile using 19 antimicrobials: amikacin (30µg), gentamicin (10µg), neomycin (30µg), cephalexin (30µg), ceftazidime (30µg), cephalothin (30µg), amoxicillin + clavulanic acid (30µg)m, pipemidic acid (20µg), nalidixic acid (30µg), enrofloxacin (5µg), norfloxacin (10µg), ertapinem (10µg), imipinema (10µg), meropenem (10µg), chloramphenicol (30µg), tetracycline (30µg) and polymyxin B 300 U.I. ESBL detection was performed by the disc approximation method using amoxicillin + clavulanic acid (10µg), aztreonam (30 µg), ceftazidime (30 µg), cefotaxime (30 µg) and cefepime (30 µg). The isolate presented multiple resistance and was positive in the screening test for ESBL. Therefore, persistent colonization of companion animals with ESBL-producing bacteria must be considered a critical issue, since these carriers may serve as an important source for the spread of ESBL producers in the human-animal interface.species.

Keywords: ESBL-producing bacteria, multiresistant profile, companion animals, enterobacteria

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