TITLE: GENOTYPIC CHARACTERIZATION OF THE ANTIMICROBIAL RESISTANCE PROFILE IN *Acinetobacter baumannii* ISOLATES RECOVERED FROM CLINICAL SAMPLES OF PATIENTS AND ANTS FROM THE HOSPITAL ENVIRONMENT

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ABSTRACT:

This study aims to characterize of *Acinetobacter baumannii* strains, isolated from clinical samples and carried by ants in a hospital environment. In *Acinetobacter* spp., the Oxacillinases are the most prevalent in relation to the other classes. In the present study, the presence of genes coding for the oxa-carbapenemases enzymes *bla*OXA-23, *bla*OXA-24, *bla*OXA-51 and *bla*OXA-58 and β-lactamases KPC, SHV, CTXm, TEM and AMPC were investigated by Multiplex Polymerase Chain Reaction (mPCR) in the genomic material of 35 bacterial isolates phenotypically identified as *A. baumannii* recovered from clinical specimens and from 35 isolates of ants from the hospital environment. The results of the amplifications showed positivity for the *bla*OXA-23*, bla*OXA-51 and *bla*OXA-58 genes in respectively 46 (78%), 52 (88.1%), 6 (10.1%) of the samples. In the genetic material of the ants collected from the hospital environment, observed Amplification for the *bla*OXA-23*, bla*OXA-51 and *bla*OXA-58 genes was found in 5 (14.2%), 10 (28.6%) and 6 (10.1%) of the samples, respectively. The genes conferring resistance mechanisms to beta-lactam antibiotics were positive in patients, as follows*: bla*TEM gene in 18 samples (30.5%) and AMPC gene in 13 samples (22%). While in the *A. baumannii* isolates from the ants, the resistance gene analyzed corresponded to the *bla*TEM gene and the AMPC gene in 2 samples (5.7%). The results obtained contribute to the knowledge about the resistance genes developed by *A. baumannii* in isoleted of clinical samples and of the ants and the possibility of these with disseminators of bacteria in the hospital environment.

Keywords: Ants, hospital environmental*, Acinetobacter baumannii,* molecular Identification, Multipex PCR.

Development Agency: No