TITLE: Genotypic evaluation of class 1, 2 and 3 integrons in clinical strains of *Acinetobacter baumannii* recovered from hospitals in Belo Horizonte.

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ABSTRACT:
Acinetobacter baumannii are Gram-negative, aerobic and immobile coccobacilli, is an opportunistic microorganism that mainly affects immunocompromised individuals, representing one of the main microorganisms that cause nosocomial infections worldwide and a great challenge for clinical practice, especially the multi-antimicrobial resistance profile observed in these. Its represent one of the main microorganisms that causes different nosocomial infections, including pneumonia, meningitis, urinary infections and bacteremia. These bacteria have a great capacity to spread and to acquire resistance to new antimicrobials and biocides, so many multi-resistant antimicrobial *A. baumannii* outbreaks, have been reported in several countries. One of the important integrons is the emergence and dissemination of multiple drug resistant strains of A. baumannii (MDR). The aim of this study was to correlate *A. baumannii* strains previously identified according to their antimicrobial susceptibility profile and resistance genes to the presence of the class 1, 2 and 3 *integrons*, as well as to evaluate the genetic similarity of the strains by Random Amplification of Polymorphic DNA (RAPD). Sixty *A. baumannii* strains were included in this study, 70% of which contained *integrons* of class 1 and, 31.7% the class 2, the simultaneous occurrence of the two *integrons* was observed in 20% of strains. None of the strains were positive for class 3 *integrons*. Higher β-lactam resistance indexes (greater than 91.7%) and aminoglycosides (greater than 75%) were associated to the presence of up to three beta-lactamases genes and *integrons* classes 1 and 2. The presence of several clonal profiles presenting a high level of similarity among the analyzed hospitals confirm the occurrence of cross-transmission of these, which can occur through different routes, such as through professionals of health.

KEY WORDS: *Acinetobacter baumannii*, antimicrobials, *integrons* of classes 1, 2 and 3, RAPD, resistance genes.

DEVELOPMENT AGENCY: FAPEMIG, CNPq, CAPES, PRPq/UFMG.