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Letter to the editor

Comment and correct to the paper "Arrival of carbapenem-hydrolyzing-oxacillinases in" *Acinetobacter baumannii* "in Bosnia and Herzegovina"

Dear Editor,

With particular attention, I have read the research paper written by B. Bedenic and co-author about the arrival and the discovery of carbapenem-hydrolyzing-oxacillinases in *Acinetobacter baumannii* in Bosnia and Herzegovina (Petrović et al., 2018). With respect to authors of this paper, I have to comment, correct and give to medical public and science more precise data of the existence of carbapenem resistant isolates of *A. baumannii* on the territory of Bosnia and Herzegovina, particularly in General Hospital of Mostar during 2009.

In January 2009, a 51 year-old female was transferred to the ICU of University Hospital of Split, Croatia, following brain surgery at the General Hospital of Mostar, Bosnia and Herzegovina (Goic-Barisic and Kaliterna, 2011; Goic Barisic et al., 2011). During the hospitalization in the General Hospital of Mostar, isolate identified as *Acinetobacter* spp. resistant to all tested antibiotics was recovered from a bronchial aspirate (confirmed in transfer letter). Following the transfer of the patient to Neurosurgery ICU of University Hospital of Split, multidrug-resistant *A. baumannii* was isolated from bronchial lavage, blood culture and cerebrospinal fluid. The antimicrobial testing by *E*-tests (AB Biodisk, Solna, Sweden) confirmed the susceptibility to ampicillin/sulbactam (MIC 1.0 μg/ml) and colistin (MIC 0.5 μg/ml), while by disc diffusion and broth microdilution resistance to imipenem (MIC 64 μg/ml), meropenem (128 μg/ml), amikacin (64 μg/ml), gentamicin (64 μg/ml), ceftazidime (256 μg/ml), cefepime (128 μg/ml), ciprofloxacin (32 μg/ml), piperacillin/tazobactam (128 μg/ml) and ceftriaxone (256 μg/ml) according to the Clinical and Laboratory Standards Institute recommendations which were used in Croatia in 2009 (Goic-Barisic and Kaliterna, 2011; Goic Barisic et al., 2011). Molecular investigation of presence of genes encoding carbapenem resistance was performed by multiplex PCR and confirmed the presence of OXA-90 gene (a variant of OXA-51/66) and gene encoding OXA-72 (a variant of OXA-40 like family). According to bibliographic database, first report of OXA-72 in Southeast Europe represents also the first published data about the molecular basis of carbapenem resistance in the clinical isolate of *A. baumannii* originated from Bosnia and Herzegovina (Goic-Barisic and Kaliterna, 2011; Goic Barisic et al., 2011). The *bla*OXA-51-like and *bla*OXA-40-like gene sequences determined in that study have been deposited in GenBank under accession numbers GQ914991 and AY739646, respectively. This isolate belonged to European (later called international) clone 2, and in the published paper was called "Mostar clone" (Goic-Barisic and Kaliterna, 2011; Goic Barisic et al., 2011). Nowadays, it is a dominant clone in all Croatian hospitals together with same mechanism of resistance, and transfer of this clone to University Hospital of Split was happened in January 2009 with direct epidemiological proof (Goic-Barisic and Kaliterna, 2011; Goic Barisic et al., 2011). From 2002 to 2009, carbapenem resistant isolates (more than 100 isolates) at University Hospital of Split were characterized by molecular methods, and were found to belong to the European clone 1 lineage, encoded only by the unusual OXA-51-type enzyme OXA-107, associated with IS*Aba*1 (Goić-Barišić et al., 2009). So, the conclusion in abstract of just published paper in Infection, Genetics and Evolution, in which the author(s) stated the information of first report of *A. baumannii* isolates producing carbapenem-hydrolyzyng oxacillinases (CHDL) from Bosnia and Herzegovina is not correct. Moreover, the author(s) of published paper in 2018 cited paper published in Journal of Hospital Infection from 2011 (Goic Barisic et al., 2011) with inaccurate data, incorrectly stating readers of the idea that carbapenem resistant isolates of *A. baumannii* have just arrived at Bosnia and Herzegovina.

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