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<AT>Molecular Epidemiology of Carbapenem-Resistant *Klebsiella pneumonia* at a Turkish Center: Is the Increase of Resistance a Threat for Europe?

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<ABS-HEAD>Highlights► Multiple resistance mechanisms were present at *K.pneumoniae* isolates. ► Most of the isolates produced OXA-48, followed by VIM and SME carbapenemase while the NDM rate was 20.4% ► The most effective antibiotics were tigecycline and colistin.
<ABS-HEAD>Abstract

<ABS-P><ST>Introduction</ST> In recent years carbapenem resistant *Klebsiella pneumoniae* has became an important threat to hospitalized patients. Our aim in this study was to identify the genetic mechanisms of carbapenem resistance in our center.
<ABS-P>**Materials and**

<ABS-P><ST>Methods</ST> In this study, a total of 98 *K. pneumoniae* isolated from patients who registered at Cukurova University Balcali Hospital and determined phenotypically carbapenem resistant were screened for genotypic presence of carbapenemase enzymes with the multiplex-PCR in the period of 2013-2014.
<ABS-P><ST>Results</ST> Of the 98 patients for whom genetic investigation made, 93 (94.8%) were adults, 56 (57.1%) were male and 81 (82.7%) were diagnosed as infected. Mean and median ages were 51.8±20.5 years and 55 (range 1-89) years. 87.8% of these infections were nosocomial. The mortality of the patients was 41.8% (n=41). Fifty-eight patients (59.2%) were admitted to intensive care units. Five of the 12 non-nosocomial infections were originated from the inpatient clinic of urology department. Median length of stay (LOS) was 17 (range 0-90) days and mean LOS was 20.7±20.8 days. The most common carbapenemase gene was detected as OXA-48 followed by VIM and SME. The detection rates were 74.5%, 45.9% and 37.8% subsequently. NDM gene rate was 20.4% (n=20). The most effective antibiotics were tigecycline and colistin. Susceptibilities were 87.5% and 74.3% respectively.
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