Assessment of MIC Increases with Meropenem-Vaborbactam (VABOMERE) and Ceftazidime-Avatibactam in TANGO II (a Phase 3 Study of the Treatment of CRE Infections)

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Revised Abstract

Background

TANGO II was a Phase 3, non-inferiority trial of meropenem-vaborbactam (M-V) vs. meropenem (MER) for the treatment of KPC-producing infections in adult patients with bacteremia, cUTI (including AP, hospital-acquired, ventilator-associated, and catheter-associated) (HABP/VABP), due to known or suspected carbapenem-resistant Enterobacteriaceae (CRE) (KPC-, MBL- producing isolates). Changes in MIC to beta-lactam agents were assessed. MIC increases were assessed using CLSI methods.

Methods

MICs were conducted on baseline and post-treatment isolates, and compared between treatment groups. Changes in MIC between the two groups were assessed using Chi-square tests. Genomic Sequence Analysis was performed on selected isolates.

Results

MIC increases were observed in both treatment groups. One patient treated with CAZ-AVI had a >4 fold increase in MIC, and became sequenced using Illumina MiSeq platform. Changes ≥4 were further assessed. Whole genome sequencing was performed on selected isolates. The increase in MIC was associated with overexpression of the p-badon gene in C. pneumoniae ATCC 700603 and BAA-376-001-602. Resistance was associated with a point mutation in the OmpK36 gene.

Conclusions

MIC increases were observed in both treatment groups. The increase in MIC was associated with overexpression of the p-badon gene in C. pneumoniae ATCC 700603 and BAA-376-001-602. Resistance was associated with a point mutation in the OmpK36 gene.

Disclosures

References


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