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P1116 Evolution of multidrug-resistant Acinetobacter baumannii pneumonia in years in terms of tigecycline treatment

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Background: The aim of this study was to evaluate and compare the efficacy and susceptibility patterns of tigecyline in MDR *A. baumannii* pneumonia in a recent vs retrospective cohort.

Materials/methods: This study was performed at a tertiary-care educational university hospital. The outcome of adult (>18 years old) patients who were consulted by Infectious Diseases consultants due to culture proven MDR *A. baumannii* pneumonia and treated with tigecycline between March 2016 and October 2017 (Group B) was compared with a similar retrospective cohort from our center (Group A, published in J Chemother. 2011 Dec;23(6):345-9). HAP and VAP were defined according to American Thoracic Society Guidelines. Identification of *A. baumannii* and determination of antimicrobial susceptibility were performed using the VITEK 2 automated system (BioMerieux Inc, Mercy L'etoil, France) and conventional methods. For tigecycline susceptibility, the FDA clinical minimum inhibitory concentration (MIC) breakpoints for *Enterobacteriaceae* (2 mg/l--sensitive) were used. Cefoperazone/sulbactam (C/S) susceptibility was analyzed via the disc diffusion test; CLSI criteria for susceptibility breakpoints for cefoperazone were used. Statistical analysis was performed via Chi square test and a p value less than 0.05 was considered significant.

Results: There were a total of 90 cases of pneumonia due to MDR *A.baumannii* (72 patients in Group A and 18 patients in Group B). A total number of 47 and 10 cases were considered as ventilator-associated pneumonia in group A and B, respectively. Tigecycline and C/S susceptibility were significantly less in group B (Table 1). Microbiologic eradication (on day 3 and 7) was observed in 47 cases (65.2%) versus 10 cases (55.5%) in group A and B, respectively. C/S combination was significantly more common in group A while colistin combination was more comon in group B. Overall one-month survival rates in group A, group B, tigecycline monotherapy (group A+B), tigecycline+any combination (group A+B) were 46% (32/72), 56% (10/18), 52% (13/25) and 52% (34/65), respectively (Table 1, p>0.05).

Conclusions: Our findings show that tigecycline resistance rates in *A. baumannii* increased during years. Although eradication rates were not very low, mortality rates were still high in this group of patients.

Table 1 Susceptibility and clinical outcome data of the cohorts.

	Group B (N:18)	Group A (N:72)	p
Tigecycline (S-sensitive)	6	72	0.0001
Meropenem (S)	0	-	
İmipenem (S)	0	6	
Gentamicin (S)	2	-	
Netilmicin (S)	6	33	0.58
Amikacin (S)	-	23	
Cefoperazone/sulbactam (S)	1	26	0.0102
Combination with amikacin	0	3	1
Combination with netilmicin	0	13	0.632
Combination with cefoperazone/sulbactam	2	26	0.0483
Combination with colistin	14	0	0.0001
Monotherapy	2	23	0.1355
Overall clinical success at the end of therapy	10	32	0.438
Overall one month post-therapy survival	10	32	0.438