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Infections by pandrug-resistant *Acinetobacter baumannii* in two tertiary care hospitals: clinical characteristics, treatment and outcomes

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BACKGROUND

The spread of pandrug-resistant pathogens worldwide is a public health concern.

Although risk factors for infection are known, data on treatment are limited.

METHODS

Retrospective observational study in two tertiary care hospitals with a total of 1200 beds.

Cohort Population: all patients with infection by pandrug-resistant *Acinetobacter baumannii* (PDR-AB), from February 2014 through May 2016.

Demographics, clinical characteristics, treatment and outcomes were recorded.

Data presented as number (%) or median (interquartile range, IQR).

RESULTS

Demographics and Infections

- 47 patients with infection due to PDR-AB
  - Male: 35/47 (74.5%)
  - Age: median 70 years (IQR 53-86)
- Median Charlson comorbidity index 4 (IQR 3-6)
- Median length of stay prior to infection 14 days (IQR 7-22)
- 38 infections (80.9%) diagnosed in the Intensive Care Unit (ICU)
- Infection types: most commonly lower respiratory tract (76.6%), primary bacteremia (14.9%)

Treatment and Outcomes

- Empirical regimen modified according to antibiogram in 32 infections (68.1%)
- Final treatment: colistin (76.6% of infections), tigecycline (68.1%), carbapenems (29.8%)
- Median length of stay after infection: 18 days (IQR 7-38)
- Death within 30 days of infection: 21/47 patients (44.7%)
- Combinations with colistin (p=0.016) or tigecycline (p=0.066) were related with longer hospital stay

Final regimen	Length of stay after infection (days), median (IQR)		
	Yes	No	*P*
Carbapenem combinations	35 (5.5-83)	26.5 (18-56)	0.912
Colistin combinations	47 (24-64)	4 (4-37)	**0.016**
Tigecycline combinations	49.5 (21-64)	18.5 (4-36)	**0.066**
Colistin plus tigecycline combinations (no carbapenem)	52 (31-64)	33 (6-54)	0.153
Carbapenem plus colistin plus tigecycline	4 (n=2)	37.5 (19.5-62.5)	-
No tigecycline-colistin-carbapenem	**4 (n=2)**	**36 (15.5-60)**	-

CONCLUSIONS

To our knowledge, this is the largest series of infections due to PDR pathogens.
The profile of infected patients includes increased age, comorbidities, long hospital stay and ICU stay.
Observed mortality was high.
Treatment regimens with either colistin or tigecycline were related with longer hospital stay
Further studies should focus on evaluating the optimal treatment of infections by PDR pathogens.

Disclosures

None

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