HIGH DOSAGE OF TIGECYCLINE IN MULTIDRUG-RESISTANT ACINETOBACTER BAUMANNII: USE ANALYSIS DURING AN OUTBREAK

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BACKGROUND

• Acinetobacter baumannii has become an important hospital-acquired pathogen. With the rise in antibiotic resistance, tigecycline has been used frequently against multidrug-resistant Acinetobacter baumannii (MRAB).

PURPOSE

• To analyze the use of tigecycline after an outbreak of MRAB in a third level hospital.

MATERIAL AND METHODS

• Retrospective observational study performed from January to March 2017 in a general hospital of 330 beds.

• All patients treated with tigecycline during the study period were included.

• The adequacy of antibiotic treatment was analyzed, including the following variables:
  • Demographic
  • Responsible service
  • Antibiotic dosage
  • Duration of treatment
  • Sample for microbiological culture
  • Indication of treatment
  • Mortality during admission.

• Clinical data were obtained from computerized medical records (Selene®).

RESULTS

• 21 patients were treated with tigecycline, with a mean age of 70.6 ± 17.8 years. 66.6% were men.

  ▪ HOSPITAL ADMISSION SERVICE
  ▪ TYPE OF SAMPLE
  ▪ STANDARD DOSE OF TIGECYCLINE: 12 patients (57.1%)
    (100 mg loading dose, followed by 50 mg every 12 hours)
  ▪ HIGH DOSE OF TIGECYCLINE: 9 patients (42.9%)
    (200 mg loading dose, followed by 100 mg every 12 hours)

  ▪ CLINICAL RESULTS
    • Mean duration of treatment was 9.7 ± 6.2 days.
    • In 23.8% of patients, tigecycline use was not indicated (colonization in 60%, or no culture available in 40%).
    • Overall mortality was 61.9%:
      ➢ Subgroup treated with standard dose showed a mortality of 58.4% (7 patients out of 12).
      ➢ Subgroup treated with high dose showed a mortality of 66.6%(6 patients out of 9).
    • Economic expenditure on tigecycline during the study period was 43,000 euros.

CONCLUSIONS

• The use of tigecycline at high dose for MRAB infections is controversial, especially in patients with colonization. Outbreaks have a high economic and clinical impact, so that the evaluation before starting treatment could optimize economic resources.