

Abstract

THE EFFICACY AND SAFETY OF AEROSOLIZED ANTIBIOTICS IN TREATMENT OF VENTILATOR ASSOCIATED PNEUMONI

Introduction & Objectives: Aerosolized antibiotics administration offers the theoretical advantages of achieving high drug concentrations at the infection site and low systemic absorption. We tried to assess the efficacy and safety of nebulized (ceftazidime plus amikacin) in comparison to nebulized (colistin) as adjunctive to systemic antibiotics treatment of ventilator associated pneumonia during ICU stay.

Patients & Methods: This study was carried out on 60 mechanically ventilated patients with gram negative VAP. The patients were divided into 3 groups. **Group A** included 20 patients treated with nebulized Amikacin plus Cefotaxime adjunctive to systemic antibiotics, **group B** included 20 patients treated with nebulized Colistin adjunctive to systemic antibiotics and **group C (control)** treated with systemic antibiotics only.

Results: In our study the clearance of organism, resistance, superinfection and combined (resistance and super infection) were not significantly different in group A vs. C also there was no significant difference regarding resistance, superinfection and combined (resistance and super infection) in group B vs. C while clearance of organism was significantly different in group B vs. C. There was significant decrease regarding creatinine level in group A vs. C and in group B vs. C. There were no significant differences regarding to duration of MV, length of ICU stay, clinical cure and ICU mortality in group B vs. C.

Conclusion: Nebulized Amikacin plus ceftazidime and nebulized Colistin are safe and effective in the treatment of VAP.

Keywords:

Colistin
Amikacin
Ceftazidime
Aerosolized
VAP