

البحث الثامن

(8) بحث مشترك غير مستخلص من رسالة:

عنوان البحث باللغة الإنجليزية:

Copeptin, a New Biomarker in COPD Bacterial Exacerbations.

الملخص الإنجليزي:

Background: Strategies aiming at reducing antibiotic use are required during management of COPD exacerbations. Although antibiotic treatment is recommended in patients with infective exacerbation of chronic obstructive pulmonary disease (COPD), a bacterial etiology was found in only 50-70% of these patients.

Objectives: The aim of the present study was to evaluate serum copeptin as a factor predicting bacterial infection in acute exacerbations of COPD.

Methods: 200 patients hospitalized due to acute exacerbation of COPD were included in this study. They submitted to spirometric, bacteriological examination. In addition, copeptin levels were measured.

Results: 200 acute exacerbations of COPD requiring hospitalization were studied. Ninety bacteria were isolated at significant threshold in 80 exacerbations. *Streptococcus pneumoniae* (16%), methicillin-sensitive *Staphylococcus aureus* (16%) and *Hemophilus influenzae* (14%) were the most frequently isolated bacteria. Copeptin > 40 pgm/L and positive Gram stain of induced expectorated sputum with quantitative sputum culture (> 10⁴ CFU/ml) were independently associated with bacterial isolation in acute exacerbation of COPD. Positive Gram stain with qualitative sputum culture (10⁴ CFU/ml) and Copeptin > 40 pgm/L had sensitivity and negative predictive value > 96%.

Conclusions and recommendations: Positive induced sputum Gram stain with quantitative culture ($> 10^4$ CFU/ml) and Copeptin > 40 pgm/L are independently associated with bacterial isolation in acute exacerbation of COPD. These results could be helpful for future interventional studies aiming at reducing antibiotic use in these patients.