ISSN NO. 2320-5407

Journal homepage: http://www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH

CORRESPONDENCE

Diagnostic accuracy of C-reactive protein in Acute Lower Respiratory Tract Infection due to different etiology

DR.ROHIT GORAKH

Manuscript Info

Manuscript History:

Received: 14 April 2015
Final Accepted: 21 May 2015
Published Online: June 2015

Key words:

sensitivity; specificity; Predictive Values; Likelihood ratios; Diagnostic accuracy; ROC analysis, Area under Curve.

Corresponding Author

DR.ROHIT GORAKH

Abstract

Background: The usefulness of C - reactive protein in differentiating between the aetiology of acute lower respiratory tract infection) is vague. Aim: To compare diagnostic indices of CRP in ALRTI of viral, bacterial and atypical organism aetiology. Methods: CRP was done in 139 hospitalised children with ALRTI. Various diagnostic indices were calculated and compared. Results: with high cut off value of CRP, specificity (89% and 85.9%); Negative Predictive Value (93 and 87.7) and Likelihood ratios approaching 2-3 also increased in bacterial and atypical cases respectively. Best Odds ratio [3.49(95% confidence interval=2.31-4.66)] were obtained in bacterial cases. In ROC analysis, Area under Curve (AUC) for viral, bacterial and atypical organisms was 0.45, 0.6 and 0.51 respectively. Conclusions: Low CRP is very precise for ruling out the possibility of bacterial and atypical organism infection. A minimal increase in the possibility of bacterial and atypical organisms etiology occurs at Serum concentration of >40mg/l.

INTRODUCTION

Background:

The usefulness of C-reactive protein in differentiating between the aetiology of acute lower respiratory tract infection) is vague.

Aim:

To compare diagnostic indices of CRP in ALRTI of viral, bacterial and atypical organism aetiology.

Methods: CRP was done in 139 hospitalised children with ALRTI. Various diagnostic indices were calculated and compared.

Results:

with high cut off value of CRP, specificity (89% and 85.9%); Negative Predictive Value (93 and 87.7) and Likelihood ratios approaching 2-3 also increased in bacterial and atypical cases respectively. Best Odds ratio [3.49(95% confidence interval=2.31-4.66)] were obtained in bacterial cases. In ROC analysis, Area under Curve (AUC) for viral, bacterial and atypical organisms was 0.45, 0.6 and 0.51 respectively.

Conclusions:

Low CRP is very precise for ruling out the possibility of bacterial and atypical organism infection. A minimal increase in the possibility of bacterial and atypical organisms etiology occurs at Serum concentration of >40mg/l.