Correlation of Obesity with Outcomes in Hospitalized Patients with Community-Acquired Pneumonia (CAP)

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ABSTRACT

This was a secondary data analysis of the Community Acquired Pneumonia Organization (CAPO) International Cohort Study database. Data was collected between 2009 and 2015. In each participating center, non-consecutive medical records of hospitalized patients with the diagnosis of CAP were reviewed. A sample of the data collection form is available at the study website (www.caposite.com). Validation of data quality was performed at the study center before the case was entered into the CAPO database. Institutional Review Board approval was obtained by each participating center.

RESULTS

This was a secondary data analysis of the Community-Acquired Pneumonia Organization (CAPO) International Cohort Study database. Data was collected between 2009 and 2015. In each participating center, non-consecutive medical records of hospitalized patients with the diagnosis of CAP were reviewed. A sample of the data collection form is available at the study website (www.caposite.com). Validation of data quality was performed at the study center before the case was entered into the CAPO database. Institutional Review Board approval was obtained by each participating center.

INTRODUCTION

CAP is a leading cause of death and hospitalization, costing health care systems billions of dollars and an estimated 600,000 adult deaths worldwide each year[2]. The incidence of obesity has increased rapidly during recent decades. More than 30% of Americans are obese, as are more than a quarter of men and women in several European countries[1]. The purpose of this study is to find the difference in mortality rate among 1446 Obese VS 1343 Non Obese patients hospitalized with community acquired pneumonia during hospitalization and after 30 days follow up. Data are limited regarding the impact of obesity on the outcomes of patients with CAP.

Objective

The objective of this study was to compare mortality for hospitalized patients with CAP with normal body mass index (BMI) (with patients with elevated BMI).

METHODS

The different differentiation of macrophages has been shown to be affected by the presence of obesity[5].

RESULTS

• A total of 1,343 patients with normal BMI and 1,446 with increased BMI (obese) were included in the study.
• After adjusting for confounding factors, there was a 27% decreased risk of 30-day mortality for obese patients compared to those with a normal BMI.
• Hospital Mortality Rates for Obese and Non Obese patients with a P-value of 0.054 is depicted in Figure 1.
• 30 day hospital mortality is depicted in Figure 2.

CONCLUSIONS

• This study indicates that obesity is protective for mortality in hospitalized patients with CAP.
• Our data are in agreement with two recent publications indicating that obese patients with CAP have improved survival.
• Obese patients have an exaggerated inflammatory state at baseline that may be protective during an episode of CAP.
• A clear understanding of the protective effect of obesity on mortality may help to define new therapeutic strategies.

REFERENCES

2- http://www.news-medical.net/?tag=Pneumonia