Abstract

Background
Chronic obstructive pulmonary disease as a chronic inflammatory diseases occur locally in the lung but also systemic impact. Chronic inflammation in COPD continues by increased levels of cytokines proinflammation both in the airway and in the blood of patients with COPD. Fibrinogen is a important protein in responding to the stimulus of the IL-6 in acute exacerbation and stable of COPD. Examination of the levels of fibrinogen in blood of the patients with COPD is still underrated and less attention to be investigated. Whereas examination of fibrinogen easy and fast. So for this reason researches assess the importance of this research. This research to adopting differences levels of fibrinogen in acute exacerbation and stable of COPD.

Objective
The purpose of this study is to measure levels of fibrinogen in acute exacerbations and stable of COPD, to analyze the differences in levels of fibrinogen in acute exacerbations and stable of COPD, and to predict the prognosis of COPD based on the levels of fibrinogen.

Methods
This study was an observational analytic study. Subjects were patient with acute exacerbation and stable of COPD, seeking treatment in Dr Soetomo Hospital and Soewandi Hospital and meet the inclusion and exclusion criteria.

Result
Differences in levels of fibrinogen in acute exacerbation and stable of COPD showed significant with ($p = 0.002 < 0.05$) with average higher in acute exacerbations of COPD. The average value of fibrinogen in COPD acute exacerbation 550.67 ± 108.31 and stable COPD with an average value 317.75 ± 46.615.

Conclusion
There are significant differences in levels of fibrinogen in acute exacerbation and stable of COPD.

Keyword
Chronic obstructive pulmonary disease, acute exacerbation and stable of COPD, fibrinogen