

Profile of Pneumocystis Jirovecii Pneumonia in HIV/AIDS Patients in Dr. Soetomo General Hospital of East Java Province

Pius Sebastian Ginting¹, Bramantono², Resti Yudhawati Meliana³, Musofa Rusli²

¹Bachelor Student, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia ²Consultant, Department of Internal Medicine, Faculty of Medicine, Universitas Airlangga/Dr. Soetomo General Academic Hospital Surabaya, Indonesia, ³Consultant, Department of Pulmonology, Faculty of Medicine, Universitas Airlangga/Dr. Soetomo General Academic Hospital Surabaya, Indonesia

Abstract

Background: Human immunodeficiency virus (HIV)-infected patients if not treated will experience acquired immunodeficiency syndrome (AIDS). People with AIDS will suffer opportunistic infection. One of the common opportunistic infections is Pneumocystis jirovecii pneumonia (PCP). PCP is an infection caused by the fungus Pneumocystis jirovecii which infects patient's lungs. The purpose of this study is to analyze the profile of HIV/AIDS patients with PCP in Dr. Soetomo Hospital.

Methods: This is a retrospective descriptive study based on medical records obtained from the inpatient ward of Dr. Soetomo General Hospital Surabaya. A total 21 patients enrolled in this study who met the inclusion criteria. The data are retrospectively described by demographic characteristics, CD4 count, clinical symptoms, blood gas, and lungs radiographic features.

Conclusion: Major findings of PCP in HIV/AIDS patients was in the group of age 25-49 years (85,7%), male (85,7%), high school graduate (71,4%), employed and unmarried (66,7%). The most common clinical symptoms were dyspnea (100%), PaO₂ ≥ 70 mmHg (61,97%), CD4 count < 50 cells/μL (76,2%) and the most common radiographic features was bilateral interstitial infiltrates (95,2%).

Keywords: HIV/AIDS; Pneumocystis jirovecii pneumonia; Opportunistic infection; Demographic characteristics; Clinical profile.

Introduction

Pneumocystis Jirovecii pneumonia (PCP) is an infection caused by the fungus Pneumocystis jirovecii. PCP is a common opportunistic infection among immunocompromised patients such as patients receiving immune-suppressive therapy and in patients

with human immunodeficiency virus (HIV) infection¹. The incidence of PCP decreased after the discovery of prophylaxis and antiretroviral therapy (ART). However, the incidence of PCP is still being reported with varying number of cases in several countries². In Jakarta, the incidence of PCP is 20%, while in America incidence of PCP is 5%^{1,3}. Pneumocystis cannot be cultured, so definitive diagnosis requires detection and identification of the organism by polymerase chain reaction of respiratory specimens, dye staining, or fluorescein antibody staining. Definitive diagnosis

Corresponding author:

Bramantono

E-mail: ibambramantono@gmail.com