

Pulmonary Embolism Associated with Left Ventricular Thrombi After Mycoplasma Pneumoniae Infection

Mazowiecki M¹, Guiddir I T², Kyheng C^{1,2}, Auger M^{1,2}, Masson E¹, Huynh V^{2,3} and Morelle G^{1,2*}

¹Department of Pediatrics, Bicêtre Hospital, Public Assistance-Hospitals of Paris, Le Kremlin-Bicêtre, France

²Department of Pediatrics, Paris Sud-Saclay University, Le Kremlin-Bicêtre, France

³Department of Pediatric Radiology, Bicêtre Hospital, Public Assistance-Hospitals of Paris, France

*Corresponding author:

Guillaume Morelle,
Department of Pediatrics, Bicêtre Hospital,
AP-HP, 78 rue du Général Leclerc,
Le Kremlin-Bicêtre, France

Received: 26 Feb 2024

Accepted: 06 Apr 2024

Published: 12 Apr 2024

J Short Name: JCMI

Copyright:

©2024 Morelle G et al., This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and build upon your work non-commercially.

Citation:

Morelle G et.al. Pulmonary Embolism Associated with Left Ventricular Thrombi After Mycoplasma Pneumoniae Infection. J Clin Med Img. 2024; V7(13): 1-5

Keywords:

Children; Venous thromboembolism; Mycoplasma pneumoniae infection

1. Abstract

1.1. Background: Mycoplasma pneumoniae is a common community pathogen associated with lower respiratory tract infection. Atypical progression of infected patients is rare but warrants particular attention, including searching for thrombosis and pulmonary embolism, especially in patients with atypically deteriorating respiratory status or prolonged progression of their symptoms.

1.2. Case Report: A 14-year-old Indian female with Mycoplasma pneumoniae pulmonary infection developed a massive bilateral pulmonary embolism and an intracardiac right ventricular thrombus. Anticoagulation treatment with low-molecular-weight heparin and antivitamin K drugs was successful. She was determined to be positive for Antiphospholipid Antibodies (APA) and acquired activated protein C resistance, which are both known to be risk factors for Venous Thromboembolism (VTE).

1.3. Conclusion: VTE must be considered for patients who have an atypical disease course after Mycoplasma pneumoniae infection. Children should be examined by a comprehensive thrombophilia screening to identify congenital and/or acquired risk factors. They should be given appropriate anticoagulant therapy and follow-up.

2. Introduction

Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE), collectively known as Venous Thromboembolism (VTE), are common complications of severe diseases and are associated with increased morbidity. The typical length of hospitalization for VTE

has been reported to be approximately 28 days, compared to only 6 days for all admissions and mortality (8%) [2,3]. VTE in pediatric patients has been reported in 0.07 out of every 10,000 children and in 5.3 out of every 10,000 childhood hospital admissions in Canada [1,2]. Pulmonary Embolisms (PE) account for 11% of these admissions in case of VTE disease [3]. The occurrence of thromboemboli in children requires further evaluation and investigation to identify both congenital and/or acquired risk factors, including congenital thrombophilia, central venous catheters, malignancy, cardiac disease, and infection [4]. PE can be a major complication in children. Overall mortality is estimated to be approximately 10% for submassive PE and 50% for massive PE. The most common underlying diseases are malignancy and congenital heart disease [5]. The reported recurrence rates for PE range from 7% to 18% [7,8].

Mycoplasma Pneumoniae (Mp) is a common cause of community-acquired pneumonia in children and has been found to be associated with multiple extrapulmonary manifestations including bullous myringitis, myalgias, myocarditis, hepatitis, autoimmune hemolytic anemia, and meningoencephalitis [6]. A rare complication, however, is pulmonary embolism, which can be life-threatening if not diagnosed early and treated promptly.

We report a rare case of *Mycoplasma pneumoniae* infection complicated by intraventricular thrombus and PE. Several case reports have described intracardiac thrombus complicating Mp infection, but none was associated with PE [9-20,22]. This highlights the fact