Pseudohemoptysis Due to *Serratia marcescens*

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KEY WORDS: *Serratia marcescens*; nosocomial pneumonia; pseudohemoptysis.

J Gen Intern Med 29(6):962–3

DOI: 10.1007/s11606-013-2649-0

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Figure 1. a. Bronchoscopic view with arrow pointing to red lesions. b. Red-colored bronchial washings.

An 88-year-old man with no history of pulmonary disease was admitted following syncope. Examination of the lungs at presentation was unremarkable and chest radiograph was clear. The patient required mechanical ventilation for several days due to his altered mental status. On hospital day four, the patient developed fever, leukocytosis, and red secretions from the endotracheal tube. Bronchoscopy revealed multiple red lesions throughout the proximal airways (Panel a,

arrow), but no active bleeding. Bronchial washings were red-colored (Panel b), but no red blood cells were seen under microscopy. Subsequently, cultures were positive for *Serratia marcescens*. Pseudohemoptysis, or the appearance of red colored sputum without the presence of red blood cells, is a well-described manifestation of *Serratia marcescens* infection. This phenomenon is attributed to the organism's production of the red pigment prodigiosin at room temperature (Fig. 1).

Serratia marcescens is a common environmental organism and an important cause of nosocomial infection.¹ Data from the US show that *Serratia* species were recovered in 4.1 % of hospitalized patients with pneumonia.² Nosocomial pneumonia attributed to *Serratia marcescens* has been traced to numerous sources, including nebulizers,³

Received July 7, 2013

Revised September 11, 2013

Accepted September 19, 2013

Published online November 2, 2013

inhaled medications,⁴ and bronchoscope equipment.⁵ Our patient was treated with 10 days of doripenem, with clinical improvement and resolution of the pseudohemoptysis.

Conflict of Interest: The authors declare that they do not have a conflict of interest. Stephanie Parks Taylor receives honoraria from the Speaker's Bureau for Salix Pharmaceuticals, May 2013 to present.

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