

[PICTURES IN CLINICAL MEDICINE]

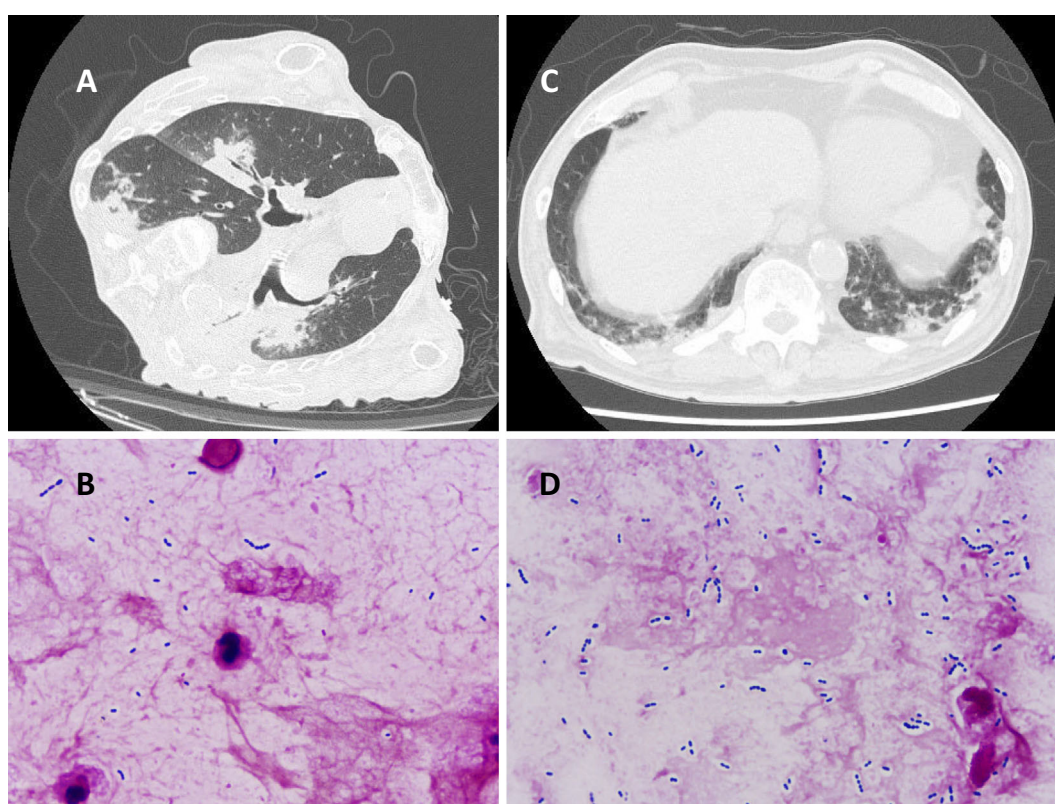
Aspiration Pneumonia by Monoclonal Growth of *Streptococcus pneumoniae*

Jiro Fujita¹, Daisuke Tasato¹, Wakako Arakaki¹ and Kohei Uechi²

Key words: aspiration pneumonia, *Streptococcus pneumoniae*, Gram stain

(Intern Med 59: 1011-1012, 2020)

(DOI: 10.2169/internalmedicine.3807-19)



Picture.

Aspiration pneumonia is not considered a distinct entity, and robust diagnostic criteria are lacking (1). The diagnosis of aspiration pneumonia depends on a characteristic clinical history (witnessed macroaspiration), the presence of risk factors, and typical findings on chest radiography (1). The radiographic findings include infiltrates in gravity-dependent lung segments (Picture A: 90-year-old woman, Picture C: 79-year-old man). Both of these patients showed typical radiological features and a clinical history of aspiration pneu-

monia. Aspiration pneumonia is well known to be caused by polyclonal microorganisms, including oral aerobic and anaerobic bacteria. However, the Gram stain (Picture B: 90-year-old woman, Picture D: 79-year-old man) and sputum culture of the present patients demonstrated a monoclonal growth of *Streptococcus pneumoniae* as the causative organism. The contrasting radiological and Gram stain findings may be explained by the recent concept suggesting initial colonization of *S. pneumoniae* in the airway (2), followed

¹Department of Infectious, Respiratory, and Digestive Medicine, Control and Prevention of Infectious Diseases, Graduate School of Medicine, University of the Ryukyus, Japan and ²Division of Clinical Laboratory and Blood Transfusion, University of the Ryukyus Hospital, Japan
Received: October 7, 2019; Accepted: November 4, 2019; Advance Publication by J-STAGE: December 20, 2019
Correspondence to Dr. Jiro Fujita, fujita@med.u-ryukyu.ac.jp

by aspiration into the alveoli, leading to pneumonia.

The authors state that they have no Conflict of Interest (COI).

References

1. Mandell LA, Niederman MS. Aspiration pneumonia. *N Engl J Med* **380**: 651-663, 2019.

2. Kadioglu A, Weiser JN, Paton JC, Andrew PW. The role of *Streptococcus pneumoniae* virulence factors in host respiratory colonization and disease. *Nat Rev Microbiol* **6**: 288-301, 2008.

The Internal Medicine is an Open Access journal distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view the details of this license, please visit (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

© 2020 The Japanese Society of Internal Medicine
Intern Med 59: 1011-1012, 2020