

Illustration

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Volume 2 : Issue 4

Article Ref. #: 1000PRRMOJ2122

Article History

Received: February 4th, 2016

Accepted: February 15th, 2016

Published: February 16th, 2016

Citation

Saraya T, Ishida M, Wada S, Fujiwara M, Takizawa H. Rapid diagnosis of hemosiderin-laden macrophages with diff-quick stain. *Pulm Res Respir Med Open J.* 2016; 2(4): 128. doi: [10.17140/PRRMOJ-2-122](https://doi.org/10.17140/PRRMOJ-2-122)

Rapid Diagnosis of Hemosiderin-Laden Macrophages With Diff-Quick Stain

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KEYWORDS: Hemosiderin-laden macrophages; Alveolar hemorrhage; Rapid diagnosis; Diff-quick stain; Hemosiderin.

A 77-year-old healthy woman was referred to our hospital with sudden hemoptysis. Chest X-ray showed moderate consolidation in the right upper lung fields. On hospital day 3, urgent bronchoscopy was performed and sequential Bronchoalveolar lavage (BAL) fluid obtained from segment 2 of the right lung was progressively more hemorrhagic. Of note, cytological evaluation with rapid Diff-quick stain demonstrated the presence of numerous large Alveolar Macrophages (AMs) engulfing yellow-colored material (Figures 1A and 1B; arrows), so-called Hemosiderin-laden macrophages together with abundant red blood cells in the background. On Papanicolaou staining, intracytoplasmic hemosiderin accumulation in the AMs was seen as faint, brown-colored, dense deposits (Figure 1C). She was thus tentatively diagnosed with idiopathic alveolar hemorrhage. Hemosiderin-laden macrophages are a hallmark of alveolar hemorrhage, which usually takes a few days to diagnose,^{1,2} but this case clearly demonstrated that these cells can be seen even in a rapid diagnostic test with Diff-quick stain.

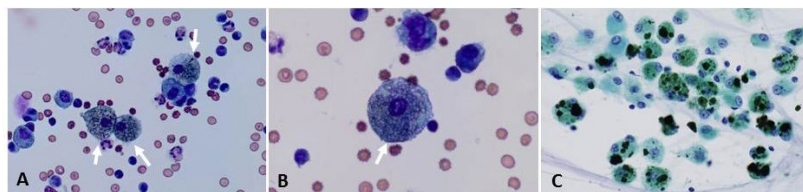


Figure 1: A and B. Cytological evaluation with rapid Diff-quick stain demonstrated the presence of numerous large Alveolar Macrophages (AMs) engulfing yellow-colored material. C. On Papanicolaou staining, intracytoplasmic hemosiderin accumulation in the AMs was seen as faint, brown-colored, dense deposits.

CONFLICTS OF INTEREST

The authors declare no conflict of interest associated with this manuscript.

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