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, but this case clearly demonstrated that these cells can be seen even in a rapid diagnostic test with Diff-quick stain.

CONFLICTS OF INTEREST

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

REFERENCES
