

Mucosa-associated lymphoid tissue lymphoma mimicking mucoid impaction

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A 74-year-old woman with right-sided palatal swelling was diagnosed with mucosa-associated lymphoid tissue (MALT) lymphoma on palatal biopsy. A staging whole-body positron emission tomography/computed tomography detected an abnormal uptake of ¹⁸F-fluorodeoxyglucose in the left lung mass (SUVmax = 8.5). High resolution computed tomography (HRCT) of the chest performed for a more accurate evaluation of the parenchymal involvement showed a mucoid impaction-like finding in the left lung (Fig. 1A). Bronchoscopy revealed a total occlusion of the superior segmental bronchus of the left lower lobe by a mass (Fig. 1B), which was later pathologically proven to be same as the palatal MALT lymphoma on transbronchial lung biopsy. We diagnosed this patient with MALT lymphoma Lugano Stage IV. After four courses of chemotherapy (rituximab + bendamustine), the mucoid impaction-like finding disappeared.

In patients with pulmonary MALT lymphoma, the most frequent parenchymal findings of chest CT are consolidations (~55%), nodules (~55%) and masses (~50%). Most MALT lesion types in the lungs are bilateral (60–70%) and multiple (70–77%; [1, 2]). In this case, the MALT lesion in the lung was solitary and appeared similar to a mucoid impaction. A mucoid impaction is defined as an airway filled with mucoid secretions [3], and it most commonly occurs in patients with inflammatory conditions, such as allergic bronchopulmonary aspergillosis/mycosis. In this case, lymphoid infiltration may have originated from MALT beneath the mucous layer epithelium and obstructed the bronchus. Some reports state that mucoid impaction is caused by malignant diseases, such as lung cancer and metastatic mucinous adenocarcinoma [4, 5]. To our knowledge, this is the first reported case of pulmonary MALT lymphoma with mucoid impaction-like finding.

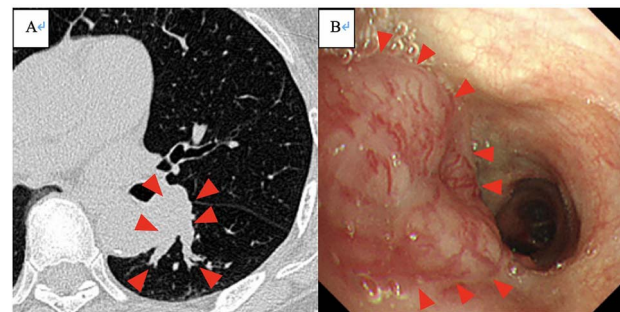


Figure 1. (A) Chest computed tomography scan showing mucoid impaction-like finding in the left lower lobe (red arrowheads). (B) Bronchoscopy revealing the total occlusion of the apical bronchus of left lower lung by the mass with angiogenesis (red arrowheads).

In conclusion, physicians should consider MALT lymphoma as a differential diagnosis when mucoid impaction-like finding are seen on CT.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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ETHICAL APPROVAL

Not applicable.

CONSENT

Written informed consent for publication has been obtained from the patient.

GUARANTOR

Takao Mochimaru.

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REFERENCES

1. Borie R, Wislez M, Thabut G, Antoine M, Rabbat A, Couderc L-J et al. Clinical characteristics and prognostic factors of pulmonary MALT lymphoma. *Eur Respir J* 2009;**34**:1408–16. <http://doi.org/10.1183/09031936.00039309>.
2. Borie R, Wislez M, Antoine M, Copie-Bergman C, Thieblemont C, Cadranet J. Pulmonary mucosa-associated lymphoid tissue lymphoma revisited. *Eur Respir J* 2016;**47**:1244–60. <https://doi.org/10.1183/13993003.01701-2015>.
3. Martinez S, Heyneman LE, McAdams HP, Rossi SE, Restrepo CS, Eraso A. Muroid impaction: finger-in-glove sign and other CT and radiographic features. *Radiographics* 2008;**28**:1369–82. <http://doi.org/10.1148/rg.285075212>.
4. Kitahara Y, Murakami Y, Nakai S, Hiramatsu T, Kishimoto Y, Nihashi F et al. Endobronchial small-cell lung cancer with intraluminal growth pattern showing “finger-in-glove” appearance. *Intern Med* 2020;**59**:701–4. <http://doi.org/10.2169/internalmedicine.3438-19>.
5. Hamer OW, Flint J, Ryan CF, Nanos D, Muller NL. Muroid impaction secondary to mucin-producing metastatic adenocarcinoma of the cervix. *Br J Radiol* 2008;**81**:e201–3. <http://doi.org/10.1259/bjr/54252155>.