Cavitary lung cancer with cartilage tissues in the wall mimicking aspergilloma

Takashige Taoka,1 Tsutomu Shinohara,2 Keishi Naruse,3 Fumitaka Ogushi1

DESCRIPTION

A 65-year-old female presented with a cavitary lesion in the right upper lung field (figure 1A). The diagnosis was aspergilloma because of the chest CT appearance of a fungus ball-like mass in the cavity (figure 1B) and treatment was started with itraconazole (200 mg/day). However, the cavitary lesion enlarged over a period of 6 months (figure 1C), with a C-reactive protein (CRP) level under 0.5 mg/dL. The patient was referred to our hospital and microscopic examination of a transbronchial lung biopsy of the cavitary lesion revealed lung cancer. A right upper lobectomy was performed. Histologically, pleomorphic carcinoma, confirmed by immunohistochemical staining, proliferated in a polypoid manner from the wall of the cavity, which consisted of malignant cells and cartilage tissues (figure 2A, B). There was no evidence of fungal elements. After surgery, the serum carcinoembryonic antigen level went down from 8.4 (<5.0) to 2.4 ng/mL.

A primary lung cancer has been considered to manifest a cavitary lesion in three ways: (1) cavitary necrosis of the primary tumour itself, (2) abscess formation of the lung parenchyma distal to bronchial obstruction by the tumour and (3) secondary carcinomatous abscesses induced by infected tumour emboli from the primary tumour.1 These pathophysiologicals are usually accompanied by high levels of inflammatory markers reflecting breakdown of the tissue. A case of cavitary lung cancer with a fungus ball-like mass, which is extremely rare,2 3 manifested high levels of CRP.2 Interestingly, the wall of the cavity, but not the polypoid mass, in our patient included cartilage tissues, suggesting that the wall was derived from the bronchial wall, which was diffusely replaced by tumour cells later and probably enlarged by a check valve mechanism without breakdown of the tissue.

Although a fungus ball-like shadow suggests a pulmonary aspergilloma, comprehensive examinations...
including endoscopy for a differential diagnosis of lung cancer should always be considered, regardless of inflammatory marker levels.

**Contributors** Conception and design: TT, TS. Collection and interpretation of data: TT, TS, KN, FO. Drafting of the manuscript: TT, TS. Approval of the final version of the manuscript: TT, TS, KN, FO.

**Competing interests** None.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Open Access** This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/

**REFERENCES**
Cavitary lung cancer with cartilage tissues in the wall mimicking aspergilloma

Takashige Taoka, Tsutomu Shinohara, Keishi Naruse and Fumitaka Ogushi

Thorax 2017 72: 383-384 originally published online October 25, 2016
doi: 10.1136/thoraxjnl-2016-209437

Updated information and services can be found at:
http://thorax.bmj.com/content/72/4/383

These include:

References
This article cites 3 articles, 1 of which you can access for free at:
http://thorax.bmj.com/content/72/4/383#BIBL

Open Access
This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

Open access (263)
Lung cancer (oncology) (670)
Lung cancer (respiratory medicine) (670)
Lung neoplasms (608)
Screening (oncology) (407)
Inflammation (1020)
Drugs: infectious diseases (968)
Cardiothoracic surgery (676)
Fungal lung diseases (51)
Journalology (123)
Radiology (diagnostics) (812)
TB and other respiratory infections (1273)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/