

CLINICAL IMAGE

Case of traumatic pulmonary pseudocysts coinciding with vertebral fracture

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Abstract

Here, we report a case of traumatic pulmonary pseudocysts (TPPs) coinciding with vertebral fracture. Traumatic pulmonary pseudocysts (TPPs) are rare complications of blunt chest trauma. These clinical images of CT, presenting here, seemed to be valuable because they show the process of pseudocyst formation.

KEYWORDS

TPP, traumatic pulmonary pseudocyst, vertebral fracture

1 | CASE

A previously healthy 51-year-old man was admitted to our hospital after falling from a height of 3 m and hitting his back. Imaging studies revealed a burst fracture of the thoracic vertebra. Computed tomography (CT) without contrast media exhibited small air leakages on the backside of the upper lung lobe (Figure 1). Follow-up CT performed after 48 hours showed the air leakages bulging to form a convex shape, indicating that the leakages were inside the pleura (Figure 2). The lesions were diagnosed as traumatic pulmonary pseudocysts (TPPs). TPPs are a rare complication of chest injury. Rapid compression and decompression of the chest cage and peripheral bronchi wall rupture are thought to cause small lacerations of the lung parenchyma.^{1,2} In this case, the TPPs formed initially were small, but they may have become enlarged after positive pressure ventilation. Therefore, we postponed surgery for the vertebral fracture for one week to avoid cyst enlargement. One week later, the patient successfully underwent

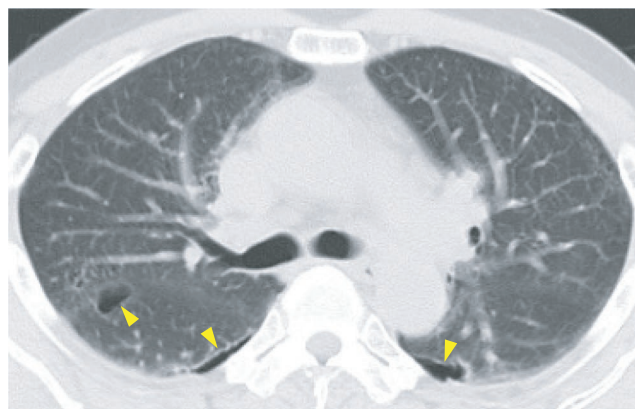


FIGURE 1 Computed tomography (CT) without contrast media exhibited small air leakages on the backside of the upper lung lobe (arrowhead)

the surgery under general anesthesia. Postoperative chest CT did not show enlargement of TPPs, and the patient was discharged from the hospital with no complications

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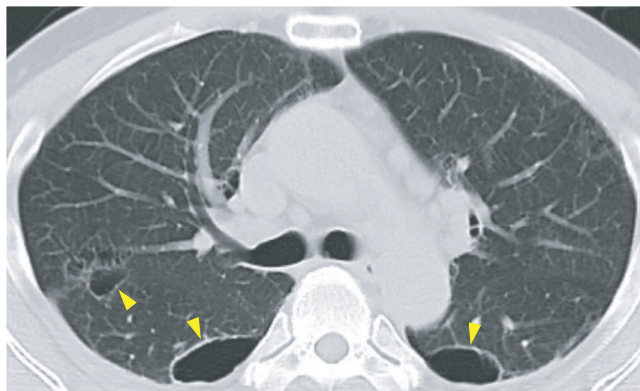


FIGURE 2 Follow-up CT performed after 48 hours showed air leakages bulging to form a convex shape, indicating that the leakages were inside the pleura (arrowhead)



FIGURE 3 Postoperative chest CT did not show enlargement of TPPs

(Figure 3). Four months after his initial presentation, the size of TPPs remained unchanged and the patient was well.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTIONS

MT and YO contributed to treat the patient and drafted the manuscript, YT contributed to diagnose and treat the patient, and MI critically reviewed the literature and involved in writing. All authors approved the final manuscript.

ETHICAL APPROVAL

Hereby, I, Dr. Yuichiro Otani, consciously assure that for the manuscript “A case of traumatic pulmonary pseudocysts coinciding with vertebral fracture” the followings are fulfilled: (1) This material is the authors' own original work, which has not been previously published elsewhere. (2) The paper is not currently being considered for publication elsewhere. (3) The paper reflects the authors' own research and analysis in a truthful and complete manner. (4) The paper properly credits the meaningful contributions of co-authors. (5) The results are appropriately placed in the context of prior and existing research. (6) All sources used are properly disclosed (correct citation). Literally copying of text must be indicated as such by using quotation marks and giving proper reference. (7) All authors have been personally and actively involved in substantial work leading to the paper, and will take public responsibility for its content. I agree with the above statements and declare that this submission follows the policies of clinical case reports as outlined in the guide for authors and in the ethics statement.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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