Huge protruded subcutaneous emphysema by thoracic air leakage

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DESCRIPTION

A 66-year-old man with lung adenocarcinoma (pT2aN2M0 stage IIIA) was admitted to our department because of gradual worsening of pain in the right back for a few days. Within 4 months before the admission, he had undergone thoracic drainages five times, combined with endobronchial Watanabe spigot, omental flap and pleurodesis, to treat refractory right pyopneumothorax caused by a lung fistula. Physical examination showed a massive protruded tensed skin lesion, measuring 8 cm in diameter (figure 1A,B), at the level of the right scapula. Around the area of protruded lesion, small bubbling sounds were noted if the stethoscope is pressed against the skin, but neither skin eruption nor redness was found. Non-enhanced thoracic CT demonstrated massive subcutaneous air collection (figure 1C, arrows), which led to the thoracic cavity via the two fistulas in the thoracic

Learning points

- ▶ Subcutaneous emphysema and pneumomediastinum commonly can be seen in critically ill patients.
- ▶ If localised subcutaneous emphysema emerged, both thoracic wall and lung fistulas should be considered for differential diagnosis.

wall (figure 1D, arrows), which were probably generated because of the repeated thoracic drainages. Therefore, he was diagnosed with massive subcutaneous emphysema caused by thoracic wall fistulas. Subcutaneous emphysema and pneumomediastinum occur frequently in critically ill patients owing to diverse differential diagnosis,¹ and various approaches have been described, including the use of subcutaneous incisions, needles, drains or cervical mediastinotomy.² However, in cases of localised subcutaneous emphysema both thoracic wall and lung fistulas should be considered.

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Figure 1 In the left lateral decubitus position, massive protruded tensed skin lesion measuring 8 cm in diameter was noted (A,B) at the level of the right scapula. Non-enhanced thoracic CT demonstrated massive subcutaneous air collection ((C), arrows), which connected to the thoracic cavity via the two fistulas in the thoracic wall ((D), arrows).

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