An Unexpected Cause of Acute Neck Pain

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A previously healthy 17-year-old female, presented to the emergency department with a one-day history of anterior neck pain, which was stabbing, continuous, and increased with deep breathing. She mentioned occasional weightlifting, the last workout being seven days before. The patient had crepitus on the palpation of the anterior neck and supraclavicular triangles. The examination was otherwise unremarkable. Neck and chest radiographs revealed subcutaneous emphysema and gas crossing the superior mediastinum (Fig. 1). Computed tomography confirmed the pneumomediastinum and significant subcutaneous emphysema (Fig. 2). No specific cause was identified. She was successfully managed conservatively with full recovery in two days, so far without relapses.

Spontaneous pneumomediastinum is defined as the presence of air in the mediastinum, not precipitated by trauma or iatrogenic causes.[1-4] It is rare in the pediatric practice[2-4] and males are most frequently affected.[1,2] Spontaneous pneumomediastinum can cause subcutaneous emphysema.[1-5] Many patients have no identifiable trigger but activities such as vomiting, coughing, and athletic exercise are often described.[1-3] The increasing spontaneous pneumomediastinum reports in the literature corroborates that this condition was being underdiagnosed.[4] Although the most common symptom described is chest pain,[1,2] we should also consider spontaneous pneumomediastinum in the differential diagnosis of acute neck pain, as this case highlights.

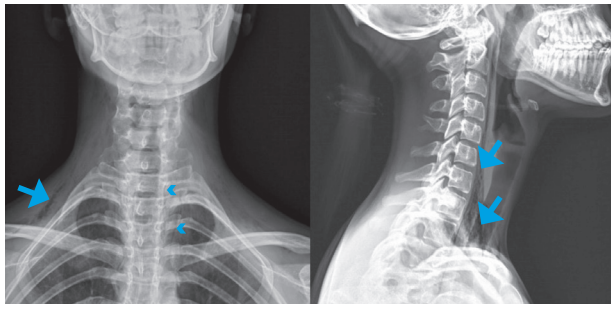

Figure 1. Neck and chest radiographs reveal subcutaneous emphysema (arrows) and gas crossing the superior mediastinum (arrowheads).

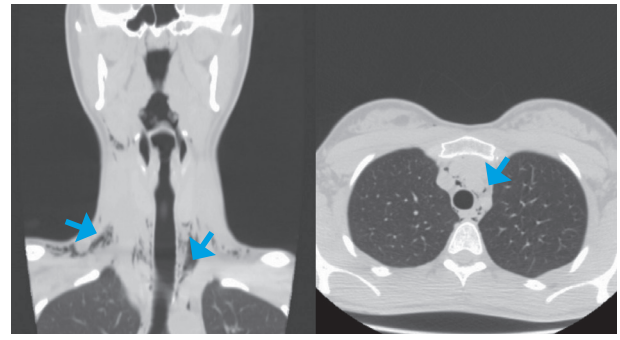

Figure 2. Neck and chest computed tomography shows pneumomediastinum with free air dissecting through the neck, causing significant subcutaneous emphysema (arrows). There is no concomitant pneumothorax. No specific cause is identified.

Keywords: Acute Pain; Adolescent; Neck Pain; Mediastinal Emphysema/diagnostic imaging; Subcutaneous Emphysema/diagnostic imaging

WHAT THIS REPORT ADDS

- Spontaneous pneumomediastinum may present only with acute neck pain, being an entity to be considered in a patient with this complaint.
- A careful physical examination is essential and the finding of crepitus on neck palpation raises the diagnosis of subcutaneous emphysema.
- Imaging exams are important in making the diagnosis, including enabling the identification of possible causes.

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

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Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

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