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A pneumothorax in ALS can not only be Spontaneous and Secondary

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LETTER TO THE EDITOR

We read with interest the article by Dib, *et al*. about a 66-year-old man with amyotrophic lateral sclerosis (ALS) and recurrent aspiration pneumonia who was readmitted for a pulmonary infection requiring intubation and mechanical ventilation [Dib, A. *et al*., 2025]. On hospital day 8 (hd8), he developed a right pneumothorax (PT) and new left pneumonia, which was treated with a right chest tube and antibiotics [Dib, A. *et al*., 2025]. On day 14, the patient was tracheostomized, but two hours later another PT occurred, this time on the left side, which was treated with a left chest tube [Dib, A. *et al*., 2025]. He was discharged with bilevel positive airway pressure (BIPAP) alternating with collar mask oxygen [Dib, A. *et al*., 2025]. The study is noteworthy, but some points should be discussed.

The first point is that the classification of the PTs as spontaneous is questionable [Dib, A. *et al*., 2025]. Both PTs occurred under mechanical ventilation and together with pneumonia, so it cannot be excluded that the infection or barotrauma was the actual cause of the PTs. Barotrauma in ventilated ALS has been repeatedly reported as a complication of ventilation in these patients [Okutani, D. *et al*., 2009].

The second point is that primary PT due to genetic predisposition has not been ruled out in the index patient [Dib, A. *et al*., 2025]. Hereditary PT has been reported in particular in patients with mutations in the FLNC or COL3A genes, in patients with Ehlers-Danlos syndrome (EDS), Marfan syndrome, alpha-1 antitrypsin deficiency, tuberous sclerosis complex (TSC), Loeys-Dietz syndrome, cystic fibrosis, homocystinuria, cutis laxa and others [Boone, P. M. *et al*., 2019]. Was the family history positive for PT?

The third point is that the patient had a disturbance of consciousness at the beginning [Dib, A. *et al*., 2025]. What degree of impaired consciousness was diagnosed, somnolence, sopor or coma? What was the cause of the disturbance of consciousness, was it hypoxia, hypercapnia, or was there evidence of acute cerebral disease, such as stroke, meningitis or a postictal state? Level of consciousness was adequate in hd4 without sedation [Dib, A. *et al*., 2025]. Was the loss of consciousness due to over-sedation? What medications had he been taking prior to admission?

The fourth issue is that it was not stated what criteria were used to diagnose ALS: Were the revised El Escorial criteria, the Awaji-Shima criteria, or the Gold Coast criteria applied [Goutman, S. A. *et al*., 2022]. Was it bulbar ALS or limb-ons*et al*S? Was the family history positive for ALS? Was familial ALS thoroughly ruled out? How long was the duration of the ALS disease?

The fifth point is that a high index of suspicion for sudden onset of dyspnea and chest pain is warranted not only for ALS patients, but for any individual who acutely develops such symptoms. Such symptoms should make the treating physician think not only of PT, but also of pulmonary embolism, myocardial infarction, gastritis, coronary artery disease, heart failure, pleurisy or pulmonary edema. Have all these differential causes of chest pain and dyspnea been adequately ruled out?

To summarize, this interesting study has limitations that put the results and their interpretation into perspective. Addressing these limitations could strengthen the conclusions and corroborate the study's message. Acute chest pain and dyspnea in ALS may not only be due to pneumothorax, but may have many other causes. ALS patients with pneumothorax should be evaluated to determine whether it is a primary or secondary PT.

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first draft, and gave final approval. xx: contributed to literature search, discussion, correction, and final approval

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REFERENCES

1. Dib, A., Salem, J. & Fares, M. "Recurrent spontaneous pneumothorax in the setting of amyotrophic lateral sclerosis." *European Journal of Case Reports in Internal Medicine*, 12.3 (2025): 005151.
2. Okutani, D., Kotani, K., Nagai, T. & Makihara, S. "[Bilateral pneumothorax of an amyotrophic lateral sclerosis patient under mechanical ventilation]." *Kyobu Geka*, 62.3 (2009): 231–234.
3. Boone, P. M., Scott, R. M., Marciniak, S. J., Henske, E. P. & Raby, B. A. "The genetics of pneumothorax." *American Journal of Respiratory and Critical Care Medicine*, 199.11 (2019): 1344–1357.
4. Goutman, S. A., Hardiman, O., Al-Chalabi, A., Chió, A., Savelieff, M. G., Kiernan, M. C. & Feldman, E. L. "Recent advances in the diagnosis and prognosis of amyotrophic lateral sclerosis." *Lancet Neurology*, 21.5 (2022): 480–493.

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