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Letter to the editor

Spontaneous pneumothorax: a fatal complication in HIV-infected patients



Dear Editor,

Spontaneous pneumothorax (SP) is a potentially fatal complication that may occur in up to 2% of the patients.¹ Different causes have been implicated such as bacterial, fungal, toxoplasmosis infections, and Kaposi's sarcoma.² Between July 2009 and July 2013, seven patients with HIV and SP were followed-up. Three patients had SP secondary to *Pneumocystis jirovecii* pneumonia (PJP), and four due to pulmonary tuberculosis (PT). Five were unilateral, and two bilateral (all secondary to PT). Three patients with PT had positive Ziehl-Neelsen sputum, and in one patient the diagnosis was suggested by radiological findings. Mortality rate of patients who had bilateral SP was 2/2, and 3/5 in patients with unilateral. Chest tube thoracostomy (CTT) was the first-line procedure with resolution in only two cases. Interval between SP onset and death ranged from three to nine days. Earlier reports confirmed that HIV-related SP usually occurs in the setting of active PJP and CD4⁺ < 200 mm⁻³, supporting recommendations that patients should be treated for PJP unless another cause is suspected.^{3,4} The frequency of SP complication during the course of PT disease has been little studied, with figures ranging from 0.6 to 1.4%.⁵ Morbidity of SP caused by PT may be higher than those due to PJP, since it was related to bilateral involvement with 100% mortality. Similar to other studies, we conclude that SP is a serious problem with high mortality in HIV patients.⁵ Alternative treatments should be used, especially if no clinical improvement is seen with CTT on the first three days, with persistent air leak. These patients must be assessed for possible video-assisted thoracic surgery with stapling of the blebs and abrasive or chemical pleurodesis; if patient is not a candidate for surgery, application of chemical pleurodesis must be done in an attempt to prevent a worst outcome.

Conflicts of interest

The authors declare no conflicts of interest.

REFERENCES

1. Sepkowitz KA, Telzak EE, Gold JW, et al. Pneumothorax in AIDS. *Ann Intern Med.* 1991;114:455–9.
2. Rivero A, Perez-Camacho I, Lozano F, et al. Etiology of spontaneous pneumothorax in 105 HIV-infected patients without highly active antiretroviral therapy. *Eur J Radiol.* 2009;71:264–8.
3. Metersky ML, Colt HG, Olson LK, Shanks TG. AIDS-related spontaneous pneumothorax. Risk factors and treatment. *Chest.* 1995;108:946–51.
4. Ihm HJ, Hankins JR, Miller JE, McLaughlin JS. Pneumothorax associated with pulmonary tuberculosis. *J Thorac Cardiovasc Surg.* 1972;64:211–9.
5. Martínez-Vázquez C, Seijas M, Ocampo A, et al. Pneumothorax in patients infected by the human immunodeficiency virus. *An Med Interna.* 2001;18:521–4.

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