

CORRESPONDENCE

The cloud of pulmonary embolism during COPD exacerbation

We read with great interest the paper of Chang *et al*,¹ published recently in *Thorax*. We totally agree with the fact that 'cardiac involvement may be an important determinant of prognosis in COPD exacerbations'. In their study, Chang *et al* found that patients presenting with COPD exacerbation (defined as dyspnoea, cough or sputum purulence, respiratory failure— $P_{O_2} < 60$ mm Hg or $P_{CO_2} > 45$ mm Hg—or change in mental status due to COPD) experience a worse prognosis if they also have high levels of troponin T and/or NT-proBNP.

However, a potential important confounding factor may explain a part of their results: undiagnosed pulmonary embolism (PE), mimicking (or induced by) COPD exacerbation. Troponin and BNP are factors associated with poor prognosis in PE.² COPD is associated with an increased risk of deep venous thrombosis and PE (particularly during exacerbation) and with an increased risk of fatal PE.³ In particular, COPD is associated with increased risk of death from undiagnosed PE.⁴

The real incidence of PE during exacerbation of COPD is not clearly known, ranging

from 1.5% to 24.7%⁵ corresponding to the incidence of elevated troponin and BNP, as noted by Chang *et al* in their cohort. Therefore, it would be of great interest if Chang *et al* could provide us some precise answers:

- ▶ In how many of the 250 patients a PE has been evoked and/or eliminated?
- ▶ How many patients were under efficient anticoagulant drugs at inclusion?
- ▶ How many patients received thromboprophylaxis, as a significant number of patients included presented other PE risk factors such as malignancy or cerebrovascular diseases?

Because of reserved prognosis of COPD patients with PE, and of the availability of preventive and curative specific drugs, COPD patients admitted with exacerbation and with abnormal cardiac biomarkers may require a PE screening and effective thromboprophylaxis if PE has been ruled out.

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