

A rare case of anti-tuberculosis drug-induced acute lung injury

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Introduction: Anti-TB drug-induced acute lung injury is a rare complication. Herein, we report the case of a patient with anti-TB drug-induced acute lung injury.

Case: A 25-year-old woman had been experiencing dyspnea for 1 day and visited the emergency room. Two weeks before the presentation, she was diagnosed with pulmonary TB, confirmed via polymerase chain reaction (PCR), and had been receiving a 4-drug regimen comprising isoniazid, rifampin, pyrazinamide, and ethambutol. A chest radiograph (Fig 1B) showed rapidly increasing bilateral nodular opacities and edema compared with that obtained 1 day before the presentation (Fig 1A). A chest CT (Fig 2B) scan showed centrilobular nodules with ground-glass opacity and interlobular septal thickening. These findings were not observed at the diagnosis of TB (Fig 2A). Bronchoalveolar lavage (BAL) was performed, revealing a high percentage of neutrophils (54%) in the BAL fluid; however, the BAL fluid was negative for viruses and bacteria, with both AFB staining and PCR for TB yielding negative results. The anti-TB regimen was discontinued and the patient monitored without therapy. After 5 days of drug discontinuation, chest CT (Fig 2C) scans showed rapid resolution of the bilateral lung lesions. At day 7 of admission, a chest radiograph (Fig 1C) showed almost complete resolution of the bilateral lung lesions with an improvement of the symptoms. Rifampin challenge was performed first. Dose escalation or drug addition (isoniazid and ethambutol) was performed without any adverse event. Finally, pyrazinamide was suspected to be the cause of the lung injury. Her treatment is ongoing without any adverse event.

Conclusion: Anti-TB drug-induced acute lung injury is difficult to diagnose due to its misdiagnosis as TB exacerbation, paradoxical reaction, and accompanying pneumonia. In this case, we suspected anti-TB drug-induced acute lung injury as the patient had been receiving the drugs for only 2 weeks and her chest radiograph from 1 day before the presentation was available to us. Therefore, we could confirm the diagnosis on the basis of improved chest radiographic findings after the discontinuation of the anti-TB regimen.

