

Medical Imagery

Daptomycin-induced eosinophilic pneumonia

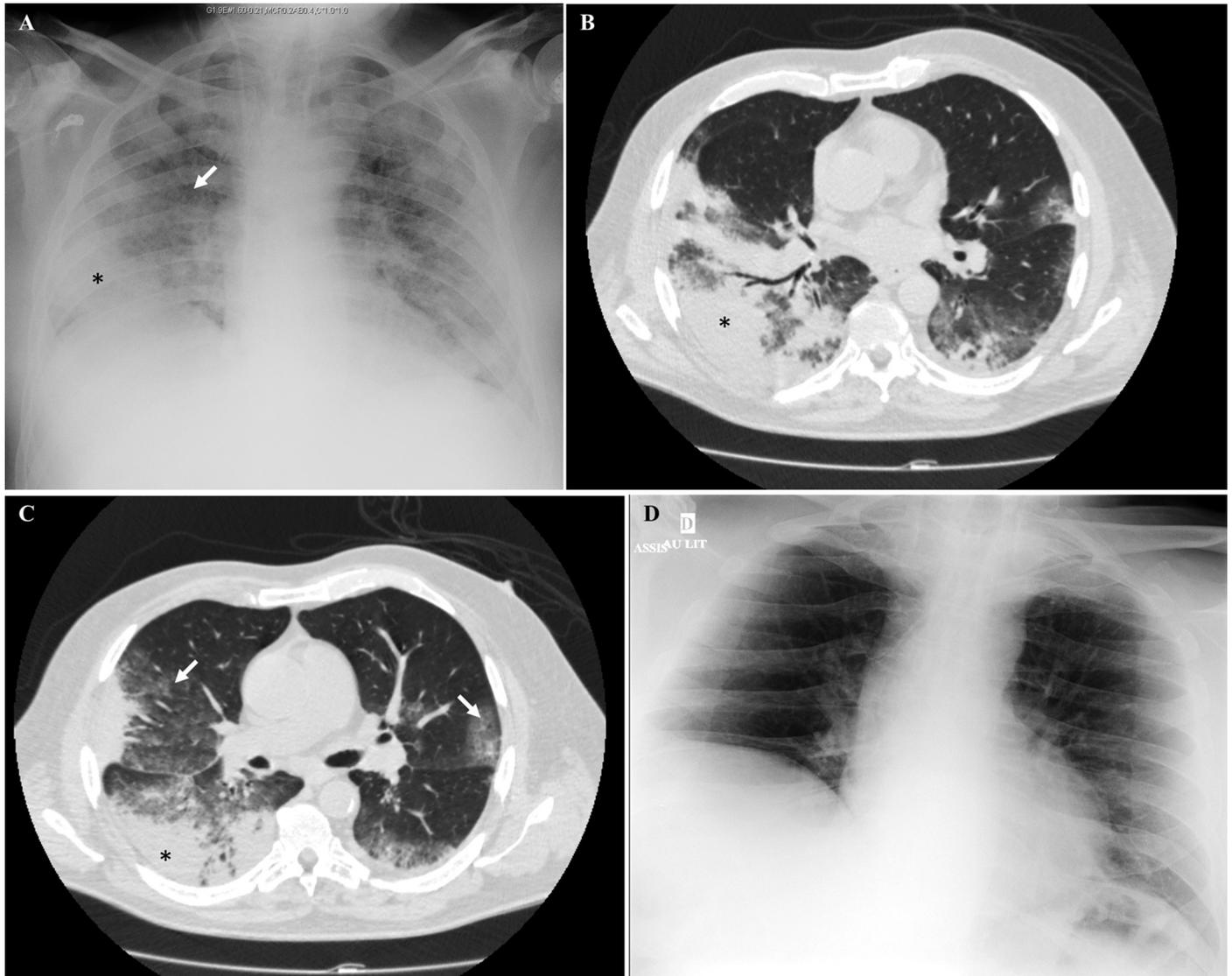


Figure 1. Initial chest X-ray (panel A) and CT scans (panels B and C) showing diffuse alveolar (asterisks) and interstitial (arrows) opacities. A follow-up X-ray showed normalization at 3 weeks after daptomycin cessation (panel D).

A 67-year-old man presented a haematogenous methicillin-susceptible *Staphylococcus aureus* hip prosthesis infection with a severe local condition requiring implant removal. Lip swelling after an oxacillin infusion (day 2) and vancomycin/gentamicin-induced acute renal failure (day 3; glomerular

filtration rate 30 ml/min) eventually led to a switch to daptomycin (6 mg/kg/day) and ciprofloxacin. Following this there was an improvement in renal function and blood cultures became sterile. Seventeen days later, the patient presented a dry cough with diffuse crackles on lung auscultation; he was

<http://dx.doi.org/10.1016/j.ijid.2015.06.010>

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hypoxemic (SpO₂, 87%). A chest X-ray and computed tomography (CT) scan revealed diffuse alveolar and interstitial opacities (Figure 1). His blood eosinophil count increased to $2.6 \times 10^9/l$. Bronchoalveolar lavage (BAL) fluid analysis showed 10% eosinophils, with 59% monocytes, 18% neutrophils, and 13% lymphocytes. The plasma daptomycin trough concentration did not indicate an overdose (23.1 mg/l). The patient improved over the course of 4 days following the withdrawal of antimicrobials and with the addition of intravenous methylprednisolone (1 mg/kg/day), which was reduced progressively over 3 weeks. At this time the chest X-ray findings normalized. Cefazolin and rifampicin were started, allowing prosthesis reimplantation 6 weeks later. After 3 months, the treatment was finally stopped.

Daptomycin-induced acute eosinophilic pneumonia is a rare but potentially severe adverse event usually occurring after 2–3 weeks.^{1,2} Bilateral pulmonary infiltrates and eosinophils of any value in BAL fluid are of diagnostic value.³ A prompt improvement after daptomycin withdrawal is generally observed, with corticosteroid therapy sometimes required.²

Conflict of interest: None, for all authors.

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Corresponding Editor: Eskild Petersen, Aarhus, Denmark

Received 1 June 2015

Accepted 21 June 2015