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Case Illustrated

Melioidosis mimicking primary lung malignancy with superior vena cava obstruction

Malcolm Wilson, MBBS, Dr[a,*], Simon Smith, FRACP, Dr[b], James Brown, FRACP, Dr[c], Josh Hanson, FRACP, Dr[d]

[a] Department of Respiratory Medicine, Cairns Hospital, Level 5, Block B, 165 The Esplanade, Cairns, Queensland, 4870, Australia
[b] Department of Medicine, Cairns Hospital, Cairns, Australia, and College of Medicine and Dentistry, James Cook University Cairns Campus, Cairns, Australia
[c] Department of Respiratory Medicine, Cairns Hospital, Cairns, Australia
[d] Department of Medicine, Cairns Hospital, Cairns, and Department of Global Health, Menzies School of Health Research, Darwin, Australia

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A 59-year-old male Torres Strait Islander presented with reduced exercise tolerance, night sweats and weight loss of twenty kilograms. He was a recent ex-smoker with a forty-four pack year history and type II diabetes mellitus. Physical examination of his chest was unremarkable, but both internal jugular veins were engorged and non-pulsatile. Imaging demonstrated bulky mediastinal lymphadenopathy partially obstructing his superior vena cava (SVC) and causing partial collapse of the right upper lobe (Fig. 1A). The history, clinical findings and imaging were consistent with a diagnosis of SVC obstruction secondary to a lung malignancy. He was admitted to our hospital and commenced on high dose dexamethasone. In hospital, his glycemic control deteriorated and, although his blood pressure was 133/88 mmHg on admission, six days later this fell abruptly to 80/40 mmHg necessitating vasopressor support. Concurrent blood cultures grew *Burkholderia pseudomallei* and repeat imaging showed enlargement of the mediastinal adenopathy and the development of a gas-filled collection between the trachea and aorta (Fig. 1B). Intravenous meropenem was commenced and his condition improved. After three weeks the meropenem was changed to continuous intravenous ceftazidime infusion to permit outpatient management. After a total of four weeks of intravenous antimicrobials he received three months of oral trimethoprim/sulphamethoxazole with folic acid. Lymph node biopsy performed one month after his initial presentation revealed only reactive lymphoid material with no evidence of malignant cells. The mediastinal lymphadenopathy had resolved on imaging performed at completion of antimicrobial treatment (Fig. 1C).

Melioidosis is a tropical infection endemic in northern Australia, Asia and South America [1]. The disease most commonly presents with a pneumonic illness. It can, however, afflict almost any organ with the skin, liver, spleen and prostate often affected. Most cases present acutely with a septicemic illness but the disease may have a more subacute presentation and mimic other conditions such as malignancy or tuberculosis [2]. Acute presentations are particularly common in individuals with diabetes mellitus, renal impairment or hazardous alcohol consumption, but the disease can also be unmasked by exogenous immunosuppression and may be rapidly fatal without appropriate antimicrobial therapy [3].

Instances of melioidosis presenting with isolated mediastinal lymphadenopathy in the absence of pneumonia are rarely described in the literature [2,3]. Although such a presentation would more commonly be due to a sinister diagnosis – such as malignancy – melioidosis should be considered, in the appropriate clinical setting, as early recognition and treatment could be life-saving.

Conflicts of interest

None.

Contributorship and competing interest statement

The authors confirm that the material within this manuscript is original, and has not been submitted for publication elsewhere.

* Corresponding author.
E-mail address: malcolm.wilson@health.qld.gov.au (M. Wilson).

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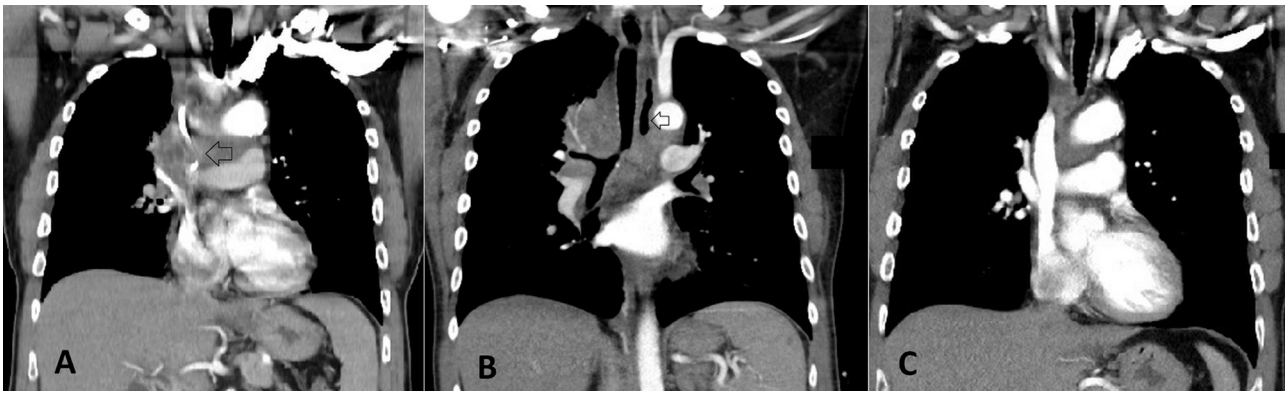

Fig. 1. A. Coronal images demonstrating mediastinal lymphadenopathy partially obstructing the SVC (arrow). B. Coronal images showing a gas filled collection within the mediastinum (arrow). C. Resolution of lymphadenopathy and SVC obstruction.

All authors have contributed equally to – and approve – the manuscript.

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Written informed consent for this manuscript was obtained from the patient. The corresponding author has retained a copy of this.

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