

Unusual cause of sinusitis and cough

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DESCRIPTION

A 60-year-old woman with chronic lymphocytic leukaemia (CLL) previously treated with ofatumumab was referred for evaluation of worsening productive cough, sinus pain and nasal congestion. She had received multiple courses of antibiotics, antifungals and steroids with partial symptomatic improvement. CT of the chest demonstrated bilateral bronchial wall thickening and bronchial dilatation associated with patchy opacities (figure 1A). An open lung biopsy revealed a dense monotonous lymphocytic infiltrate in a bronchiolocentric distribution sparing the lung parenchyma with associated vague non-casating granulomatous inflammation and focal areas of organising pneumonia. These findings suggested pulmonary involvement by CLL (figure 1B, C). Nasal and paranasal sinus biopsies were also consistent with

CLL. She was started on salvage therapy with ibrutinib. Sinus, nasal and pulmonary symptoms resolved completely after 4 months without the need for additional antibacterial or antifungal medication. Repeat imaging showed resolution of opacities (figure 1D). The majority of pulmonary infiltrates in patients with CLL have an infectious aetiology; however, malignant involvement of the lung parenchyma by leukaemia might have similar radiological findings.¹ Malignant leukaemic involvement of the lung must be considered in any patient with leukaemia presenting with respiratory symptoms.² Prompt exclusion of infectious aetiologies expedites appropriate treatment and subsequently improves clinical outcomes.

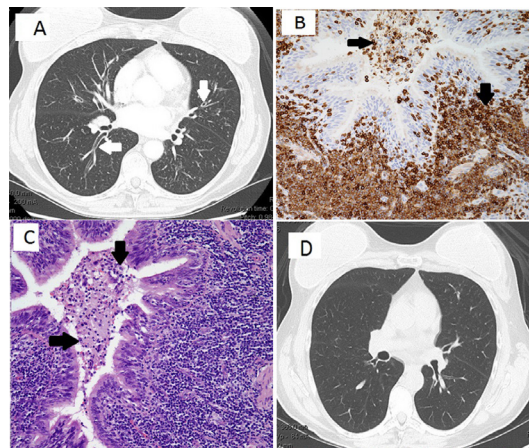


Figure 1 (A) CT of the chest demonstrating bilateral bronchial wall thickening and bronchial dilatation associated with patchy opacities. (B) Lung biopsy with immunohistochemical stain for CD5 shows positive staining in the lymphocytic component (black arrows). (C) Lung biopsy showing dense monotonous lymphocytic infiltrate around airway (black arrows). (D) CT of the chest demonstrating resolution of previous patchy opacities.

Learning points

- ▶ Malignant leukaemic involvement of the lung must be considered in any patient with leukaemia presenting with respiratory symptoms.
- ▶ Prompt exclusion of infectious aetiologies expedites appropriate treatment and subsequently improves clinical outcomes.

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