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# Oesophageal dilatation with pulmonary consolidation

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## CASE REPORT

A 78-year-old woman presented with cough and expectoration. She also complained of dysphagia and regurgitation for the last three months. She had used mineral oil for a long time to treat constipation. Physical examination revealed bilateral crackles and an $SaO_2$ of 95%. Computed tomography (CT) demonstrated bilateral consolidation with areas of low attenuation and the presence of oesophageal dilatation (*figure 1*). Endoscopy showed oesophageal achalasia. Laboratory tests yielded serological findings of Chagas disease (CD), and indirect immunofluorescence and an enzyme-linked immunosorbent assay were positive. Bronchoalveolar lavage demonstrated the presence of intrapulmonary lipids (*figure 2*). The patient was treated with nifurtimox and physiotherapy, and was discharged for outpatient monitoring.

**Figure 1.** *A) HRCT at the level of the upper lobes with lung window settings demonstrated bilateral areas of consolidation surrounded by ground-glass attenuation, and thickening of the interlobular septa. B) CT image with mediastinal window settings showing areas of low attenuation within consolidations, better identified on the left (white arrows). Note also the presence of oesophageal dilatation (arrowheads)*

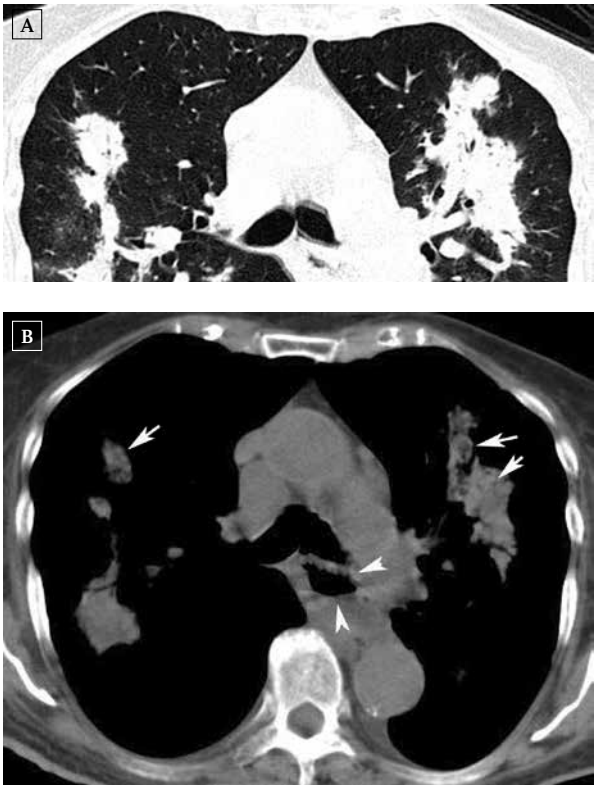
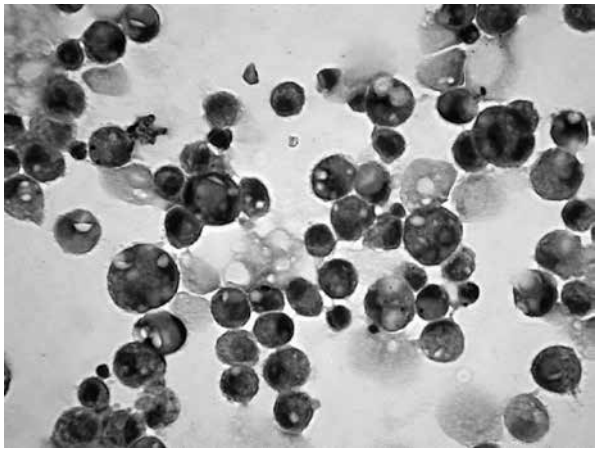



**Figure 2.** *Alveolar macrophages recovered by bronchoalveolar lavage and stained with oil red O. The cytoplasm is full of large rounded vacuoles that displace the nucleus to the periphery (oil red O stain, ×400)*



## WHAT IS YOUR DIAGNOSIS?

See page 38 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (PAGE 34)

OESOPHAGEAL DILATATION WITH PULMONARY CONSOLIDATION

## DIAGNOSIS

These tomographic and cytological findings were consistent with the diagnosis of exogenous lipoid pneumonia (ELP) in a patient with Chagas disease (CD). ELP is a rare disorder caused by the aspiration of mineral, vegetable, or animal oil. The most common cause of ELP is the use of mineral oil to treat constipation.[1,2] Diagnosis is based on a history of mineral oil ingestion; consistent radiological findings, especially the finding of foci of fat attenuation within areas of consolidation on CT; and the demonstration of lipid-laden macrophages in bronchoalveolar lavage fluid or lung biopsy specimens.[1,2] CD is a common South American disease caused by the protozoan *Trypanosoma cruzi*, which predominantly results in alterations in the oesophagus, colon, and heart.[3,4] Chronic constipation is a common symptom in patients with CD and is often treated with mineral oil. The aspiration of mineral oil is not uncommon in these patients because of the presence of Chagas disease.[1,2] The association of these two factors (use of mineral oil for the treatment of constipation, and a predisposition to aspiration due to megaoesophagus) potentiates the development of lipoid pneumonia in patients with CD.

The diagnosis of ELP should be considered in chagasic patients with megaoesophagus who have used mineral oil to treat constipation and who present with parenchymal consolidations on CT.

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