A political asylum seeker with an amoebic empyema in Birmingham

Dev Banerjee, Andrew Clamp, David Stableforth

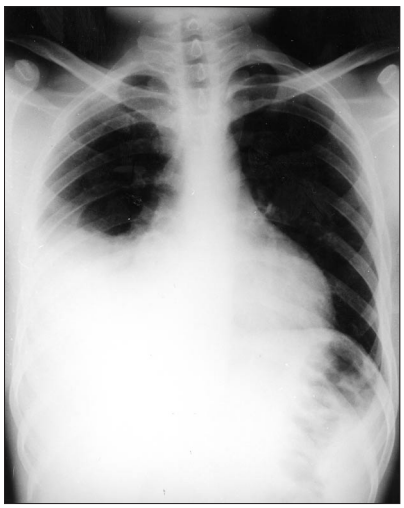


Figure 1. Chest radiograph showing right basal consolidation and effusion.

INTRODUCTION

Increasing migration of political exiles and refugees into Western Europe has resulted in physicians becoming more aware of tropical illnesses mimicking common Western European diseases. Lack of awareness of a possible tropical aetiology may increase morbidity and mortality because of delayed diagnosis. This article presents a political asylum seeker from Afghanistan who presented as having community-acquired pneumonia 6 months after arriving into the UK but eventually was found to have an unusual tropical aetiology.

DISCUSSION

This case of amoebic liver abscess and empyema in a political asylum seeker presenting as having pneumonia with haemoptysis highlights how physicians must remain vigilant of tropical illnesses mimicking common Western European diseases. This patient was treated for 10 days without resolution of symptoms. It was only when an abdominal computed tomography scan revealed a coincidental liver abscess that appropriate treatment could be instituted. There were no prior clinical indications of a liver abscess, e.g. right hypochondrial pain or hepatomegaly, and there was no previous history of a dysenteric illness. The authors believed at the time that the mildly raised aspartate transaminase resulted from the pneumonia.

Like amoebic dysentery, amoebic liver abscess is also caused by the protozoa *Entamoeba histolytica*. Amoebic liver abscess is more common in the tropics but can occasionally occur in non-tropical Western European areas in patients previously residing in or visiting endemic areas (Triger, 1978; Lane and Nicholson, 1984; de Lalla et al, 1992). In a review of 2074 patients with amoebic liver abscess in South Africa (Adams

CASE REPORT

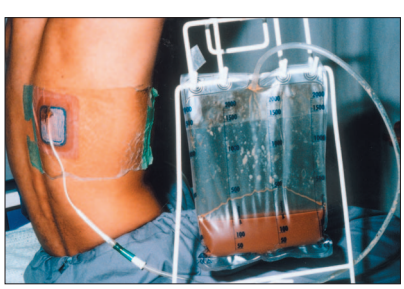
A previously well 21-year-old male non-smoker from Afghanistan was admitted with a 5-week history of right-sided pleuritic chest pain, weight loss, fever and night sweats. Two days before admission he developed a productive cough with frank haemoptyses. He had arrived into the UK 6 months previously as a political asylum seeker. On examination, he was unwell with an oral temperature of 39.0°C and tachypnoeic at 20 breaths per minute. Respiratory examination revealed signs consistent with a right basal consolidation and an effusion. Cardiovascular and abdominal examinations were unremarkable.

Investigations revealed his haemoglobin level to be 10.4 g/dl (normochromic normocytic), neutrophil leucocytosis of 16.4 x10^9/litre, albumin 27 g/litre, aspartate transaminase 66 IU (normal range < 35) and C-reactive protein raised at 39 mg/litre (normal range < 10). Arterial blood gases on air revealed a PO_2 of 8.5 kPa and PCO_2 of 4.6 kPa. A chest radiograph (*Figure 1*) confirmed the right basal consolidation and effusion. Needle aspiration, however, was unsuccessful.

He was managed for 10 days as having community-acquired pneumonia with intravenous benzylpencillin 1.2 g four times a day and oral ofloxacin 400 mg once daily in accordance with local hospital guidelines. Multiple serial blood and sputum cultures were negative for respiratory pathogens including sputum acid-fast bacilli. His haemoptyses become more red-brown and purulent in colour and character, and his pyrexia persisted. C-reactive protein remained elevated, and the radiographical changes persisted. Fibreoptic bronchoscopy demonstrated normal bronchial tube anatomy, with copious blood-stained secretions originating from the right lower lobe bronchus. Bronchial washings were also negative for mycobacteria and other respiratory pathogens.

With no improvement in symptoms a computed tomography (CT) scan of his thorax was undertaken. This showed consolidated lung with a pleural effusion communicating directly with the subphrenic space and an abscess in the right lobe of liver (*Figure 2a* and *b*). A size 8Fr self-locking pigtail catheter was inserted into the effusion under ultrasound guidance and 600 ml of viscous anchovy sauce-coloured pus, typical of an amoebic abscess, was drained (*Figure 3*). Microbiological cultures of the empyema were negative but serum *Entamoeba histolytica* antibodies (immunofluorescence) were strongly positive. Repeated stool microscopy did not reveal any amoebic cysts. Treatment with metronidazole and diloxanide furoate (to eradicate any possible faecal cysts) resulted in rapid total resolution of symptoms and signs. One-month follow-up CT of the chest and liver showed near total resolution of both the right-sided empyema and the liver abscess.

Figure 3. Pig-tail catheter in-situ in the pleural space showing the characteristic anchovy sauce-coloured empyema.



Dr Dev Banerjee is Specialist Registrar in Respiratory Medicine, **Dr Andrew Clamp** is Senior House Officer in Medicine and **Dr David Stableforth** is Consultant in Respiratory Medicine, Department of Respiratory Medicine, Birmingham Heartlands Hospital, Bordesley Green East, Birmingham B9 5SS

Correspondence to: Dr D Banerjee

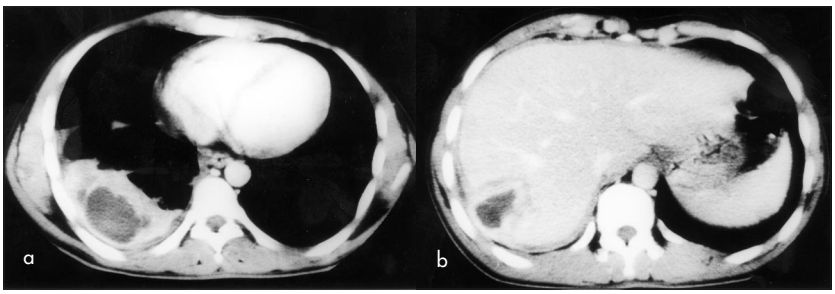


Figure 2. Computed tomography scan of (a) the chest and (b) abdomen showing consolidated lung with an effusion that communicated directly with an abscess in the right lobe of liver.

and MacLeod, 1977), 146 (7%) were complicated by extension to the chest. In this series, the thoracic amoebiasis cases presented as hepatobronchial fistula (47%), pleural effusion and empyema (29%), lung abscess (14%) and consolidation (10%).

Most patients complain of chest pain, cough, haemoptysis and dyspnoea. The sputum may vary from purulent sputum to frank haemoptysis or even frank amoebic anchovy sauce-like pus. Physical signs are those of the underlying lesion — most commonly an elevated diaphragm, signs of consolidation or an effusion. Treatment with metronidazole and abscess drainage gave good results. Surgical intervention was rarely called for. The case fatality rate in their series was 6.2%; missing or delaying the diagnosis were important causes of death. Literature searches using Medline and Biomed databases revealed no other published reports of amoebic liver abscess presenting as a pneumonia with haemoptysis in Western Europe.

CONCLUSION

With increasing international travel and migration, a high index of suspicion for amoebic liver abscess is required in patients from endemic areas presenting with a right lower lobe pneumonia, effusion and haemoptysis. HM

Adams EB, MacLeod IN (1977) Invasive amebiasis: II Amebic liver abscess and its complications. *Medicine* **56**(4): 325–35

de Lalla F, Rinaldi E, Santoro D, Nicolin R, Tramarin A (1992) Outbreak of Entamoeba histolytica and Giardia lambia infections in travellers returning from the tropics. *Infection* **20**(2): 78–82

Lane MR, Nicholson GI (1984) Amoebic liver abscess: an Auckland experience. *NZ Med J* **97:** 187–90

Triger DR (1978) Amoebic liver abscess in Wessex – a retrospective survey of 24 cases. *J Tropical Med Hygiene* **81**(4): 54–9

IN THE PUBLIC'S VIEW...

The cost of knee-jerk populism

At last, we are able to do tonsillectomies again. Faced with an unknown risk of instruments contaminated forever with indestructible prions, the decision was made that all instruments used for the operation must be disposable.

This is not the first time that I have asked about bull bars on so-called off-road vehicles: they kill pedestrians. If you want to turn a car into an almost guaranteed killing machine, especially for children, there is no better way than by covering the relatively soft plastic bumper and headlamps with steel bars. Given that off-roaders are inherently more dangerous to people outside the vehicle (they are heavier and more unstable than other cars), and that their drivers seem more likely (in my experience) to use mobile phones when driving and to blatantly go through red lights, it must be carnage out there. But, hey! We call that an 'accident'.

Presumably it's OK if children are killed in accidents, but not if they're killed by vCJD, when there is the risk that the government of the day will have to pay out enormous sums in compensation. On the likely amount of damages, the cost of halting tonsillectomies and then introducing disposables is probably small, but the hypocrisy is numbing.

And then there was the search for body parts: has anybody added up the cost of that fatuous exercise? For those who missed it, all clinical and non-clinical areas in all trusts, including locked drawers and filing cabinets, were searched by a designated team, just in case there were bits and pieces lying around uncatalogued in hospitals, and doctors were told to bring in any specimens they had at home or in premises outside the trust. The aim was to avoid future embarrassment and the 'need for relatives to arrange further funerals'.

It is this last phenomenon that is the most disturbing: relatives arranging funerals for microscope slides seems more to indicate a public slide into totemism and pagan rites than a religious expression of grief.

The designated searchers of our anaesthetic department were gravely disappointed. There were scattered items of anaesthetic kit but not even a snapped-off incisor tooth to catalogue. Other searchers found out where to go for a bottle of sherry or a box of chocolates and were amazed at how much space was taken up storing Christmas decorations. A gall stone was found in a drawer somewhere, of unknown provenance: is someone going to have to sample its DNA?

When are we going to have some serious government, instead of knee-jerk populism? Not soon, I suspect, if a report in *The Times* (18 April) is true: 'Surgeons will have to lead airline-style safety demonstrations for clinical teams before every big operation under plans to reduce NHS errors.' It just gets sillier and sillier.

The first step in reducing errors in the NHS is to take Professor Liam Donaldson's 'no-blame' message seriously. That will not happen until the real world stops dishing out summary suspensions and media stories about 'bungling doctors'. HM

Dr Neville W Goodman is Consultant Anaesthetist at Southmead Hospital, Bristol