Covert inhalation of tablet causing fatal pneumonia

S.N. Hill, A.N.H. Main and W.J. Fuggle

Department of Geriatric Medicine, University of Birmingham, and Department of Pathology, Selly Oak Hospital, Raddlebarn Road, Birmingham B29 6JD, UK.

Summary: Inhalation of foreign bodies is usually associated with acute respiratory symptoms. We report a case of an elderly woman who died from pneumonia due to covert tablet inhalation. Clinicians caring for the elderly should consider this as a possible cause for pneumonia which fails to respond to usual therapy.

Introduction

The incidence of foreign body inhalation into the tracheobronchial tree in hospital chest units is about twenty cases annually, the majority of patients being children.^{1,2} There is usually a history of inhalation or acute respiratory symptoms.^{3,4} We report an elderly woman with unsuspected tablet inhalation causing fatal pneumonia.

Case report

A 79 year old woman entered hospital after six weeks' anorexia, night sweats, general malaise and exertional breathlessness. She had received a 10 day course of oral ampicillin, and a further course of oral flucloxacillin and ampicillin (Magnapen) which continued until her admission. Her other medication had been methyl dopa 250 mg four times a day, hydrochlorothiazide and amiloride (Moduretic) daily, ferrous sulphate (Ferrogradumet) and diphenoxylate hydrochloride (Lomotil) as required.

Examination revealed an ill-looking woman, breathless on slight exertion. At the base of the right lung there were coarse inspiratory crepitations and moderate dullness to percussion.

Investigations revealed haemoglobin 8 g/dl, erythrocyte sedimentation rate 126 mm/hour, neutrophil leucocytosis ($17.2 \times 10^9/l$) and mild renal failure. Serum electrophoresis showed no evidence of myelomatosis. Blood culture showed no growth. Sputum specimens were mucoid and blood stained with no bacterial growth or malignant cells. Chest X-ray showed consolidation of the posterior basal segment of the right lower lobe.

She remained unwell with fever and night sweats despite treatment with oral erythromycin and metronidazole. Obstructing bronchial carcinoma causing distal lobular pneumonia was suspected. We therefore felt justified in performing bronchoscopy to achieve a definite diagnosis but before this could be performed the patient suffered a stroke complicating her worsening pneumonia and died 2 days later, four weeks after admission.

Autopsy revealed massive consolidation of the right lower lobe. The right lower lobe bronchus was completely occluded by impacted hard material, the appearance being that of a tablet. Histology of the lungs confirmed pneumonia and showed no evidence of neoplasm or arteritis.

Discussion

Old people are major tablet consumers and are most susceptible to illness which impairs swallowing or ability to report tablet inhalation. This patient was mentally clear with normal swallowing. The nature of an inhaled object reflects the patients' culture and eating habits.³ Great numbers of tablets are swallowed in this country yet inhalation has not been reported often. In one unusual case⁵ an asthmatic adult inhaled a wrapped Lynestrenol tablet inadvertently from his Medihaler, but gave a clear history of the tablet entering his lung. Unsuspected inhalation of other objects is well recognized^{6,7} and, particularly when vegetable in origin, may result in lung sepsis.³ Most foreign bodies are found in the right lung, particularly in adults.²

Removal of foreign bodies by rigid bronchoscopy under general anaesthetic with adequate pre-oxygenation, followed by physiotherapy and

Correspondence: S.N. Hill, M.B., M.R.C.P.
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antibiotics, has been shown to be safe and effective, usually obviating the need for surgery.^{1,3} Early bronchoscopy in this case might have allowed removal of the tablet and effective treatment of the pneumonia. We would remind clinicians caring for old people to be aware of the possibility of covert

tablet inhalation as a rare, but potentially treatable, cause for pneumonia which fails to respond to usual therapy, particularly in the right lower lobe, and to arrange for prompt bronchoscopy where bronchial obstruction is suspected.

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