

CASE REPORT

A bronchial butterfly

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A bronchial butterfly. B. Yung, C. Norton, B.H. Davies. ©ERS Journals Ltd 1994.

ABSTRACT: We report on an asthmatic patient who accidentally inhaled the small metal backing ("butterfly") of a nose stud, which she wore daily. Despite administration of nebulized salbutamol, postural drainage, and the use of rigid and fiberoptic bronchoscopes, attempted removal of the butterfly remained unsuccessful. Spontaneous expulsion of the butterfly occurred two months following inhalation.

We suggest that consideration should be given by nose stud jewellery manufacturers to a more secure fixing device.

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Inhalation of foreign bodies remains common. Children comprise the largest group, with peak incidence between 1-2 yrs of age [1, 2]. In adults, inhalation of foreign bodies is usually associated with impaired consciousness, alcoholism, and conditions leading to incompetence of the larynx. We report a case of an unusual foreign body inhalation.

Case report

The patient was a 32 year old woman, a known asthmatic, smoking 20 cigarettes daily. During the past 10 yrs, she had daily worn a nose stud consisting of a main stem with a small metal backing ("butterfly"), made of gold of unknown purity (fig. 1). She awoke on the day of admission to find the nose stud, without the butterfly, on the floor of her home. She attended the local Emergency Department and a chest radiograph revealed the butterfly to be in the left bronchial tree (figs 2 and 3). She was, therefore, transferred to the chest unit for further management.

On examination, the only abnormality was scattered expiratory wheeze, and peak expiratory flow rate was 300 l·min⁻¹. Nebulized salbutamol and postural drainage were given but repeat chest radiograph remained unchanged. The patient initially underwent rigid bronchoscopy, followed by fiberoptic bronchoscopy, but a careful search of the whole bronchial tree failed to reveal the butterfly, which was probably lodged very distally. The patient received a further 5 days of postural drainage, with no success. As she was asymptomatic, further invasive procedure was not felt to be justified at this stage. She was, therefore, discharged home and remained well on review a month later, with her radiograph unchanged. Spontaneous expulsion of the foreign body occurred two months following inhalation.

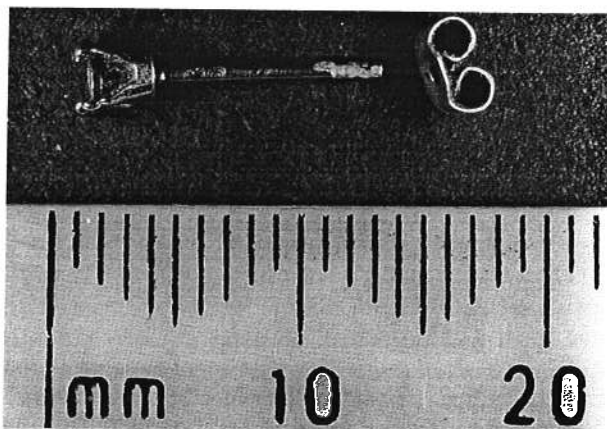


Fig. 1. - The nose stud consisting of a metal main stem and the butterfly backing.

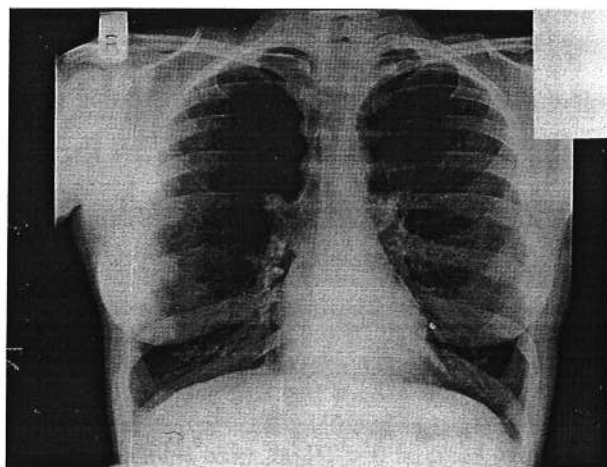


Fig. 2. - Patient's chest radiograph showing the metal butterfly *in situ*.

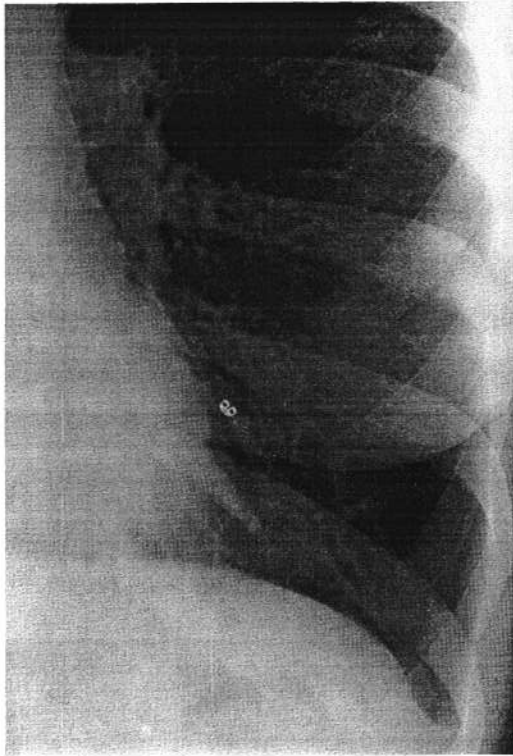


Fig. 3. - A magnified view of the patient's chest radiograph.

Discussion

Inhalation of a variety of foreign bodies has been reported, including peanuts, seeds, animal bones, teeth and toys. More unusual foreign bodies include a hypodermic needle [3], a 22 carat gold safety pin [4] and a whistle [5]. Occasionally inhalation of foreign bodies is iatrogenic [6, 7]. In some cases, foreign bodies are inhaled deliberately, often in patients with a positive psychiatric history, and fatal results have been reported [8]. The presenting complaints of patients depend partly on the size of the foreign body, and may include

dyspnoea, cough, haemoptysis, pleuritic chest pain, sputum production and fever; although, patients can remain asymptomatic, in some cases, for many years [4]. Foreign bodies are seldom opaque on chest X-ray.

Conservative treatment includes the use of nebulized beta₂-agonist and postural drainage. Corticosteroids may be helpful, as there is often mucosal swelling around the inhaled foreign body. Spontaneous expulsion is uncommon, and removal endoscopically is usually necessary.

In our patient, due to the size, the position and the nature of the foreign body, further invasive procedures were felt unnecessary, after the first failed attempt at removal with both rigid and fiberoptic bronchoscopes. Spontaneous expulsion occurred two months following inhalation.

We suggest that consideration should be given by nose stud manufacturers to a more secure fixing device.

References

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