

REPORT OF A RARE CASE OF TRACHEAL FOREIGN-BODY IN AN ADULT

ABDUL RAHIM BIN MAJEED

INTRODUCTION

TRACHEAL foreign bodies are quite unusual and life threatening and removal of the foreign body is the only way to save the life. They are rare because of the strong protective function of the larynx which prevents their entry. In a series of 11 cases of foreign bodies in the respiratory tract, Sambamurthy and Patel (1971) reported that tracheal foreign bodies were seen in 9% of cases. Harboyan et al. (1970) reported that out of 213 cases of foreign body in the respiratory tract, 96% were found in the trachea. In a similar series by Alvi (1967) out of 96 cases, tracheal foreign bodies were found in 52% of cases. The incidence in trachea as reported by various authors is not in agreement. Once the foreign body passes this laryngeal barrier (watchdog of the lungs) it gets inhaled right down into the bronchus or into one of its branches, depending upon the size of the foreign body. Only large foreign bodies which cannot go beyond the main bronchial orifice remain in the trachea. The size of the foreign body relative to the dimension of the tracheo-bronchial tree which varies with age, determines its ultimate location. A small peanut may be relatively larger for an infant's bronchial orifice and may remain in the trachea whereas in an adult the same may be inhaled into the lower lobe bronchus causing atelectasis of a segment of the lung. After a short spell of spluttering coughing spasm, difficulty in breathing, haemoptysis (if the foreign body has a rough surface or spiky projections) and perhaps cyanosis, the patient gets adapted to the foreign body in the trachea followed by a relief of the acute symptoms. But the difficulty in breathing progressively increases until the patient is choked to death if obstruction becomes complete. Stridor is of 'to and fro' type, can be heard on auscultation or even appreciated on palpation over the pre-tracheal region.

Tracheal foreign bodies are usually encountered amongst mischievous children and mentally unsound adults. All kinds of bizarre foreign bodies of the tracheobronchial tree have been reported in the literature.

Inhaled foreign bodies are potentially fatal. The returns of the Registrar-General for England and Wales showed that 443 deaths in 1960 and 471 deaths in 1961 were attributable to the effects of inhaled foreign bodies.

CASE REPORT

Mr. L.A.K., a Chinese male aged 45 years, was admitted to the General Hospital, Seremban, on 11.8.1976 at 4.30 p.m. with a history of having inhaled a metallic nut on the night of 10.8.1976, which he was keeping in the mouth while lying down. He had an initial severe bout of cough following the incident lasting for about ½ hour and it subsided gradually on its own, to occur at intervals whenever the patient shifted his position. This patient was an old case of schizophrenia (paranoid type) under follow-up at the psychiatry clinic.

On examination at the time of admission, which was about 24 hours later than the incident, he was seen to be a well-built adult. He was restless with hurried breathing, no cyanosis, no dysphagia and had coughed out blood stained sputum. He was unable to give a clear account as to why this incident had happened but mentioned his numerous personal and social problems. 'To and fro stridor', close to the neck of the patient, was heard. His voice was normal. Stridor was palpable over the cervical trachea which was slightly tender. Air entry was poor on both sides. Rhonchi were heard over both lung fields.

Investigations

An X-ray of the soft tissue of the neck revealed a metallic radio-opaque nut in the cervical trachea just above the suprasternal notch. The lie of the nut was almost on the sagittal plane with a visible

General Hospital, Seremban.

ABDUL RAHIM BIN MAJEED, M.B., B.S., M.S.,
D.L.O. (Madras)
E.N.T. Surgeon,



Fig. 1 Lateral view x-ray of the neck showing a radio-opaque foreign body in the cervical trachea.

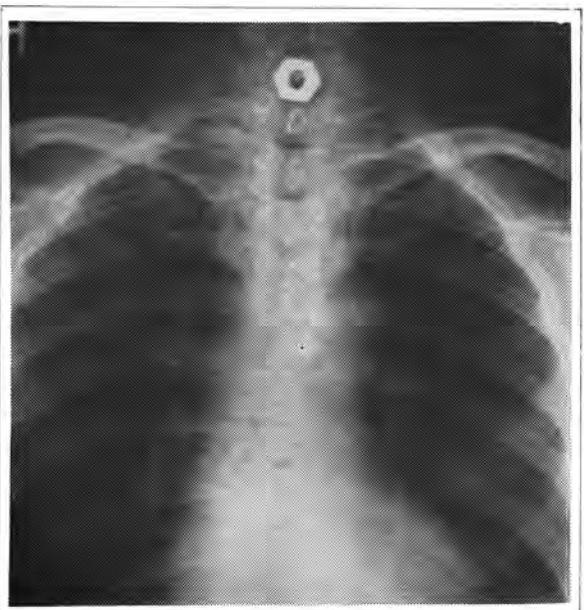


Fig. 2 X-ray of the chest showing normal lung and heart shadows. The foreign body is seen in the trachea in the midline.

central hole (Fig. 1). An X-ray of the chest showed a foreign body in the upper trachea. There was no collapse of the lungs and the heart shadow was normal (Fig. 2).

Management

The patient was taken to the operation theatre and the foreign body (Fig. 3) was removed under general anaesthesia. The patient made an uneventful recovery and was later referred to the Psychiatrist for follow-up.

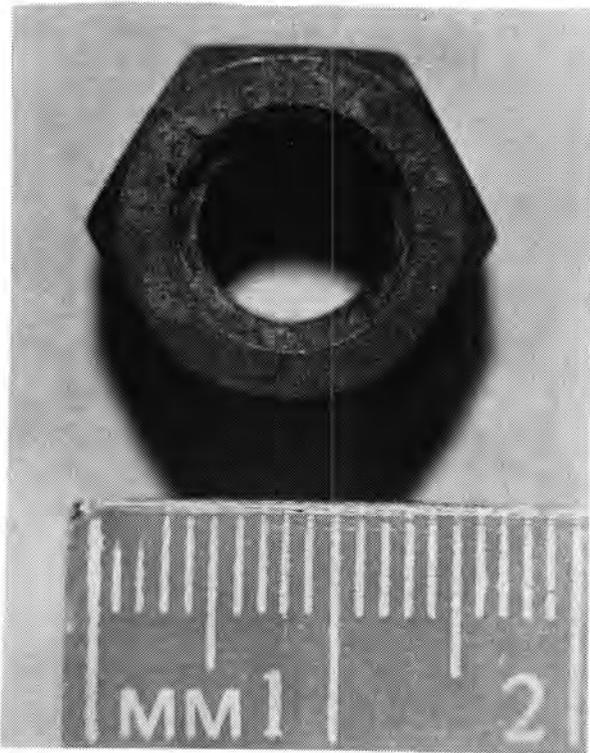


Fig. 3 Specimen of the foreign body removed.

DISCUSSION

The diagnosis of foreign body in the trachea was made out clinically in this case because of a positive history, the presence of a cough with haemoptysis, progressive increase in the difficulty in breathing and an obvious 'to and from stridor' present at the time of the examination.

Because the foreign body was large and radio-opaque it was easily seen on X-rays. The initial X-ray of the soft tissue of the neck showed the almost sagittal lie of a metallic foreign body in

the cervical trachea. It is unusual for a fairly heavy metallic foreign body to be retained in the cervical trachea for so long. The presence of a central hole in the foreign body allowed us to select the correct instruments required to remove it.

The removal of a foreign body from the trachea requires a lot of skill. It will only be possible with proper instruments and a good reliable anaesthetist. If endoscopic removal fails, one should be prepared to do a tracheotomy and to use the bechic blast to move the foreign body to the site of the tracheotomy from where it can be removed. A head-low position is preferred while the foreign body is being removed.

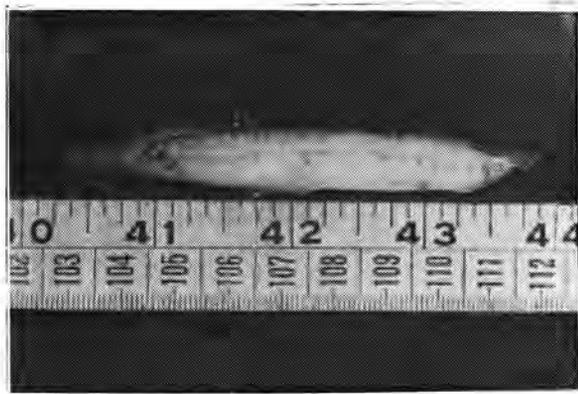


Fig. 4 Specimen of the 4 inch long fish removed from the trachea of a boy of 13 years.

In Fig. 4 is shown an unusual tracheal foreign body, a 4 inch long fish, from the trachea of a boy aged 13 years, which I removed while working in the E.N.T. Department of the Stanley Medical College Hospital, Madras, in 1970.

SUMMARY

A foreign body in the trachea in a mentally unsound adult is reported for its rarity of incidence. It was removed successfully by endoscopy. Its unusual location in the cervical trachea at the time of X-raying is noted.

ACKNOWLEDGEMENTS

My grateful thanks are due to the Medical Superintendent, General Hospital, Seremban, for permitting me to publish this report. I am also grateful for the excellent cooperation given to me by my anaesthetist and would like to thank Mr. Wong Wai Ming for the clinical photographs, and Mr. Charlie Delima for secretarial help.

REFERENCES

- Alavi, K. (1967) Water melon seeds in the Tracheobronchial tree in Iran. *Arch otolaryng.* **85**, 214 — 215.
- Birrel, J.F. (1968) Logan Turner's Diseases of nose, throat, ear. Bristol John Wright & Sons Ltd., 333 — 336.
- Harboyan, G., *et al.* (1970) Tracheobronchial foreign bodies, a review of 14 years experience. *J. Laryngology.* **84**, 403 — 412.
- Honda, P.S. and Grover, M.S. (1974) A case of foreign bodies in trachea. *Indian J. Otolaryng.* **26**, 212.
- Narasimachari, K.V. and Reddy, E.R. (1968) Missed foreign bodies in trachea removed by tracheostomy. *Indian J. Otolaryng.* **20**, 36.
- Ranger, D. (1965) Trauma and stenosis of the Larynx in text book of diseases of Ear, Nose, and Throat. W.G. Scott Brown, Vol. II, p. 511.
- Sambamurthy, V. and Patel, R. (1971) Foreign bodies in food and air passages. *Indian J. Otolaryng.* **23**, 84.
- Tarasia, H.S. and Mishra, N.N. (1974) An unusual foreign body in the trachea and left bronchus. *Indian J. Otolaryng.* **26**, 110.