

## Letters to the Editors

### Importance of X-ray in chronic stridor

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Dear Sirs

We read with interest the recent letter entitled 'Importance of X-ray in chronic stridor' in the March edition of the *JLO*. The advice given was that foreign body ingestion is best investigated with X-ray and treated with rigid endoscopy or the use of a Foley balloon catheter under fluoroscopic control.

Our experience is quite different. Currently only 75 per cent of oesophageal foreign bodies may be diagnosed radiologically using plain films of the neck or barium swallows.<sup>1</sup> Contrast medium impedes visualization at oesophagoscopy and is associated with a small risk of contrast aspiration.

Direct pharyngo-oesophagoscopy under a general anaesthetic has inherent problems in terms of patient safety. Patients are more likely to suffer trauma or perforation of the pharynx, oesophagus and teeth with a procedure involving a rigid endoscope. Any procedure which does not involve a general anaesthetic would be inherently safer, whilst patients who have recently eaten and are then placed under a general anaesthetic are at increased risk of aspiration.

Flexible nasendoscopy alone has been used to identify and remove some foreign bodies from the base of tongue and vallecula<sup>2</sup> but it cannot exclude the presence of a foreign body further down.

We therefore advocate the use of transnasal flexible laryngo-oesophagoscopy (TNFLO). The TNFLO is a Pentax 80K Series Digital Video Endoscope; it is a 5.1 mm diameter endoscope, incorporating a High Resolution Colour CCD chip in its tip, allowing excellent, full-screen images of high definition to be viewed on the monitor. As well as being able to perform suction and irrigation, insufflation (or indeed ventilation with oxygen) is also possible. The endoscope also has a 2 mm instrument channel allowing passage of reusable grasping forceps.

The nose is first prepared with four sprays of lignocaine hydrochloride (5 per cent)/phenylephrine (0.5 per cent) aerosol solution applied to each nostril; and 3 mls of Instagel (containing 2 per cent lignocaine) is then applied to both anterior nares. The remaining 5 mls of Instagel is used as a lubricant on the endoscope itself, providing further topical analgesia. Finally two sprays of lignocaine (10 per cent) to mouth/oropharynx.

The TNFLO is passed transnasally examining the oro- and hypopharynx, and then passed into the oesophagus. The presence, type and site of a foreign body can then be established. If a foreign body, such as a fish bone, is detected, it can be visualized and extracted using flexible grasping forceps passed down the instrument channel and delivered through the nasal or oral cavity. The object is then inspected to ensure it has been removed in its entirety. Some objects are unsuitable for extraction by this method, however, others may be judged to be safely and easily assisted into the stomach by insufflation.

Since the procedure is performed under local anaesthetic, the patient is able to eat and drink as soon as the effects of the local anaesthetic have worn off. This

allows discharge 1 hr after the procedure.

So far all five of our patients have been successfully managed as described using this new integrated system for the visualization and removal of foreign bodies from the pharynx and oesophagus.

Yours faithfully,

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### References

- 1 Castellon Ortega J, Hernandez Diaz A, Pila Perez R *et al.* *Acta Otorhinolaring Esp* 2000;51:511–4
- 2 Koay CB, Herdman RC. Nasendoscopy guided removal of fish bones from the base of tongue and the vallecula. *J Laryngol Otol* 1995;109:534–5

### Authors' Reply

Dear Sirs

Our previous letter was written to stress the importance of excluding foreign bodies in cases of stridor. A plain X-ray is a very simple investigation, non-invasive and readily available, and we feel that this is an investigation that should be performed in all cases of stridor, so that a foreign body can be excluded. The X-ray may also be useful in assessing the epiglottis. In many cases of foreign body ingestion the history will be indicative and, if the foreign body is not obvious on X-ray, one can utilize other investigations which are available locally.

We agree that video-endoscopes have been increasingly used in the last few years for removing small foreign bodies such as fish bones from the upper aerodigestive tract.<sup>1</sup> They are also useful in assessing cancer of the upper airways and digestive system.<sup>2</sup> However, since it is performed under local anaesthesia, it requires a degree of patient co-operation and in children with foreign bodies, who are already distressed, it may be challenging or sometimes impossible to use. In addition, the ports of the video endoscope and the grasping forceps are small and can make it difficult to remove big or impacted foreign bodies.

Of course transnasal flexible laryngo-oesophagoscopy (TNFLO) is not available universally and the instruments used to remove foreign bodies will be dependent upon the facilities available locally, as well as the experience of the surgeon. We agree that rigid endoscopy risks trauma but it remains the most widely used tool to remove foreign bodies and may be the only way in difficult cases. Risk versus benefit should obviously be considered in every case, but where video endoscope fails or is impossible we