Removal of Blunt Oesophageal Foreign Bodies from Children Using a Foley Catheter.

by Dr. Indran Devadason MBBS (Sydney), DMRD (London), MRCP (U.K.), Radiologist, District Hospital, Taiping, Perak.

P.A. and Lateral Chest X-rays are taken to confirm the diagnosis that the blunt foreign body (in our case Fig. 1 a 20 cent coin swallowed by a 6 year old Malay girl on 9.7. 75) is in the oesophagus.



Fig. 1 Chest X-ray. Coin at lower end of oesophagus.

Method.

After preliminary sedation (not always necessary), the child was placed in the lateral decubitus (or oblique) position with the foot of the x-ray table slightly elevated to prevent aspiration of foreign body, or oesophageal or gastric contents. A sucker and emergency trolley with laryngoscope, endotracheal tube etc., were kept available.

The Foley Catheter was passed through mouth (or nose) into the oesophagus. A few ml. of Urografin 60 were injected into the catheter to assist fluoroscopic positioning and when the catheter was distal to the foreign body, the balloon was inflated.

The oesophageal lumen thus enlarges and the foreign body dislodges to rest on the inflated balloon and thus reduces the risk of perforation. The foreign body is pulled ahead of inflated balloon and removed from the mouth – see Fig. 2.



Fig. 2

Demonstration of removal with inflated balloon of Foley Catheter below coin.

If the nasal route is used, the balloon has to be deflated before removal. If the balloon slips past the foreign body, the procedure is repeated.

Discussion.

Oesophagoscopy has been the usual method of removal of foreign bodies and still has to be used for sharp foreign bodies and probably if the period after ingestion is greater than 48 hours. However, there is the hazard of general anaesthesia, hospitalisation, and a small risk of oesophageal perforation.

This technique of using a Foley Catheter is simple, safe and successful if there is no history of *underlying oesophageal disease*. If this is suspected when foreign body impaction is not at the points of physiological narrowing (thoracic inlet, aortic arch, left main bronchus, or oesophagogastric junction) a Dianosil swallow (precaution against aspiration) should be done. A dionosil swallow also localises and stains non-opaque foreign bodies for removal.

Acknowledgements.

I wish to thank the Director General of Medical and Health Services of Malaysia, Tan Sri Datuk (Dr.) Abdul Majid Ismail for permission to publish this article, the Surgical Unit and my Radiographers for their invaluable help and especially Mr. Mohd Amin bin Deta for typing this article.

References.

- Bigler FC. The use of a Foley Catheter for removal of a blunt foreign bodies form oesophagus. J. Thorac. Cardiovasc. Surg. 51: 759 - 760, May 1966.
- Brown LP: Blind oesophageal coin removal using a Foley Catheter Arct. Surg. 96: 931 - 932 June 1968.
 Kretschmer KP: Another useful application of the
- Kretschmer KP: Another useful application of the balloon-tipped Forgarty Catheter. Amer. J. Surg. 122: 417 Sept: 1971.
- Shackelford G.D. et al: The use of a Foley Catheter for removal of blunt oesophageal Foreign bodies from children. Radilogy 105: 455–456 Dec: 1972.
- Spitz. L: Management of ingested foreign bodies in childhood. Brit. Med J. 4: 469 - 472, 20 Nov: 1971.
 Symbas PN: Indirect method of extraction of foreign
- Symbas PN: Indirect method of extraction of foreign body from the oesophagus. Ann. Surg. 167: 78 - 80 January 1968.