SAFETY PIN - THE UNSAFE FOREIGN BODY OF AIR PASSAGE

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Abstract: Foreign bodies in the air passage are familiar otolaryngological emergencies. The diagnosis and management in most cases is based on clinico-radiological findings. Here, we are reporting three cases of open safety pin at various locations in the respiratory tract i.e. in the nose, nasopharynx and larynx. Their clinical presentation and management are described in detail.

Keywords - Safety pin, air passage.

INTRODUCTION

Foreign bodies have always puzzled and mystified the medical fraternity. Since time immemorial the problems of foreign bodies, their identification and management have posed a great challenge. Various types of foreign bodies have been reported in the air passage, both organic and inorganic, metallic and non-metallic. Safety pins are rare in the air passage, specially an open one. Because of its pointed end it may get trapped somewhere in the oropharynx or rarely swallowed. Here we have reported three cases of open safety pin in the air passage.

CASE REPORT

CASE 1

An 18 month old male child presented to the casualty with history of introduction of a safety pin in the right nasal passage and bleeding from that side. The child was unco-operative for any clinical examination. Skiagram of skull, anteroposterior and lateral view revealed the presence of an open safety pin in the right nasal cavity with its open end directed anteriorly (Fig.I)

Under general anaesthesia, the foreign body was seen lying in the right nasal cavity with its pointed end embedded in the right middle turbinate. Rest of the body of the safety pin was lying in the nasal cavity proper. The pointed end of the safety pin was carefully disimpacted from the turbinate and the foreign body was removed. Postoperative recovery was uneventful.

CASE 2

An eleven months old female baby was brought to the ENT OPD with history of introduction of a safety pin in the left nasal cavity. She was initially taken to a private practitioner who tried to remove the foreign body. The attempt was aborted as there was bleeding from the nose and the child was referred to us.

On examination - baby was febrile. Nasal examination showed oedema over the dorsum of nose on left side associated with left periorbital oedema. Anterior rhinoscopy revealed only blood clots in the left nasal cavity. No foreign body was visualised. X-ray nasopharynx lateral view showed an open safety pin in pharynx with its pointed end directed towards the roof (Fig.II)

The baby was posted for removal of foreign body under GA.

Clots from the left nasal cavity were removed. One end of the safety pin was lying in the left posterior choana. Main part was present in nasopharynx with its pointed end embedded there. The safety pin was carefully disimpacted and removal perorally. Postoperative period was uneventful.

CASE 3

An eleven months old female was admitted in the Paediatrics ward with the suspected diagnosis of pneumonia. There was history of sudden onset cough and difficulty in breathing seven days back.

On X-ray chest PA view, there was accidental detection of an open safety pin in the airway. X-ray neck-lateral view revealed that the open safety pin was lying in the larynx with its head hanging down in trachea, while the body was overriding the laryngeal inlet with its pointed end piercing the posterior pharyngeal wall.

Direct laryngoscopy was done under general anaesthesia and foreign body was carefully disimpacted from the pharyngeal wall and removed. Posterior part of left vocal cord was ulcerated due to pressure from the shaft of the pin. Postoperative recovery was uneventful.

DISCUSSION

A foreign body is an object or a substance foreign to the location where it is found¹. Variety of foreign bodies ranging from beans, nuts, seeds, bones, teeth, pencils, nails, whistles and fractured tracheostomy tube etc. have been reported in literatures. The severity of symptoms depend upon the site, size, composition and the period for which the foreign body has been present. At times, it can be life threatening and needs prompt management.

Foreign bodies in Ear, Nose and Throat are often deceptive in that they seem so accessible that one may get tempted to remove them immediately and land up in pushing the foreign object deeper inside. The dictum while dealing with these foreign bodies is that one should not try to remove the foreign body unless proper illumination, instrumentation and expertise is available. With lack of these facilities attempt could prove fatal. When the child is crying and one tries to remove a nasal foreign body with deep breath foreign body could be sucked in the tracheobronchial

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Fig. I-Skiagram of skull, anteroposterior and lateral showing an open safety pin in the right nasal cavity with its open end directed anteriorly

Fig. II- X-ray nasopharynx lateral view showing an open safety pin in pharynx with its pointed end directed towards the roof

tree and a simple nasal foreign body may become a bronchial foreign body or in case of pointed foreign body it may become a nasopharyngeal foreign body which needs larger set up, specialists and special instruments for removal. In the second case, the baby must have put the safety pin in the nose and manipulation by the doctor pushed it posteriorly in the nasopharynx.

In the third case we still wonder that how the safety pin, that too an open one had travelled all the way from the oral cavity to the oropharynx and got impacted in the larynx in such a small child who was just 11 months old.

Safety pin accounts for less than 3% of all the foreign bodies found in tracheobronchial tree² and 1.5% of those found in oesophagus³. Management of safety pins, particularly an open one is a real challenging task which requires very meticulous and cautious approach. Great care must be taken during removal to prevent further injury. The correct management of an open safety pin in the air passage still remains an enigma to the ENT practitioner⁴.

Incidence of foreign bodies is more in children. Children explore their world by introducing objects in their mouth and nose⁵. They have a habit of putting things in the mouth to determine their taste and texture and also to chew on when teething. In the rural areas the small children are in care of elder siblings. Negligence and illiteracy, talking while eating, mental infirmity, alcohol ingestion and wearing dentures when asleep are some of the contributing factors for foreign body aspiration.

CONCLUSION

Aspiration of foreign body is a preventable mishap. It can be prevented by imparting proper education to the parents and public at large. They should be told about dangers of these accidents & eventualities. Education of medical fraternity for

not medalling with the things for which one does not have expertise and facilities is also important.

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REFERENCES

1. Chevalier Jackson : *Bronchoesophagology* (1951) : WB Saunders, Pg. 13-34.
2. Casuey AL, Tallon DS, Miller RC, Warner ET (1997) : A reported safety pin requiring thoracotomy - report of a rare case and review. *Pediatric. Emergency care* : 13; 397-400.
3. Goel HC, Yadav SPS, Kohile GS, Singh J (1989) : Oesophageal foreign bodies. *Indian Journal of Otolaryngology* : 18; 49-52.
4. Sen, Sikder, R. Sinha, R. Paul (2004) : Open Safety Pin in nasal cavity. *Indian Journal of Otolaryngology* : 56; 129-131.
5. Cllen M. Freidman : *Tracheobronchial foreign bodies. O.C.N.A.* 2000, Vol 33, No.1 : 79-83.

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