Removal of a metallic foreign body in the neck with a magnet: a case report

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Abstract

A 26-year-old man, presented to our department with history of a metallic foreign body in the neck. On wound exploration under local anaesthesia, the foreign body was not readily palpable. It was removed with the help of a magnet.

Keywords Metallic foreign body · Magnet · Neck

Case report

A 26-year-old man, a plumber by profession was referred to our department with history of foreign body in the neck. Patient had been hammering on a nail that shattered on impact and got stuck up in the neck. He attended a local hospital where his wound was cleaned and dressed and was discharged with antibiotics and analgesics. After 2 days, he developed throbbing pain in front of his neck and discharge from the wound site. He consulted a local ENT surgeon who referred him to a higher centre. At the higher centre his wound was explored, but no foreign body was found and hence referred to our department for removal under C-arm guidance.

When he presented, there was a 2cm wound of previous exploration in front of his neck at the level of thyroid cartilage.

On examining, indirect laryngoscopy was normal, no intraluminal foreign body was found. On investigating with x-ray soft tissue neck lateral view (Fig. 1) and AP view (Fig. 2) after inserting two cannula needles as markers, a foreign body was found at C4 level in the anterior soft tissue in neck just below thyroid notch.

After preliminary investigations, his wound was explored under local anaesthesia. The previous incision was extended 2cm on either side. Incision deepened, superficial fascia including platysma divided, strap muscles retracted. The metal piece was not readily palpable. As C-arm at our department was out of order, we used a small magnet (Fig. 3). On keeping a magnet over the wound, it got attracted to a point at the thyroid notch. On exploring the area, pus extruded and the foreign body of size 2mm (Fig. 4) got stuck to the magnet instantaneously and was removed.

Discussion

Foreign body neck is a common case presenting to ENT surgeons. Its immediate removal is a must, or else

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Fig. 1 X ray ST Neck showing the PB**Fig. 2** X ray AP view neck markers**Fig. 3** Magnet**Fig. 4** Removed PB

complications can occur. Few are

- The foreign body can migrate along subcutaneous and fascial planes to adjacent structures and even to thyroid gland.
- Defense mechanism of the body to the foreign body cause invasion of inflammatory cells leading to granuloma formation.
- The foreign body can act as foci of recurrent infection and can cause abscesses.
- Abscess might rupture and subsequently a sinus can form.
- Persistent irritation and infection by the foreign body can cause great vessel rupture which ends fatally.

Conclusion

Magnet is a handy and very simple instrument for removal of metallic foreign body anywhere in the body, without sub-

jecting the patient to the harmful effects of radiation by C-arm. Hence it is a very important tool in the armamentarium of ENT surgeons.

References

1. Hersam G, Barker P, Bowley DM, Boffard KD (2001) The management of penetrating injuries *Int surg* 86(2): 82–89
2. Issing PR, Stover T. (1999) Throat pain after chopping wood. Penetrating trauma of soft tissue of neck caused by a metal splinter *HNO* 47(12):1072–1073
3. Wood J, Fabian TC, Mangianate EC, (1989) Penetrating neck injuries: recommendation of selective management *J Trauma* 29(5):602–605
4. Siegrist B, Steeb G (2000) Penetrating neck injuries *South Med J* 93(6):567–570
5. Cherian TA, Pujari K Joshi B (2001) An unusual penetrating foreign body in the neck *JNMA* 40:83–85