Incidental presentation of a button battery within a pharyngeal pouch: the first reported case

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DESCRIPTION

An 88-year-old woman presented acutely to the ear, nose and throat (ENT) department at a District General Hospital with an unusual foreign body discovered on videofluoroscopy. This investigation had been organised by her general practitioner as the patient was experiencing progressive dysphagia with food regurgitation and weight loss. There was no history of chest or abdominal pain, haemoptysis or known foreign body ingestion. She had a background of polymyalgia rheumatica, ischaemic heart disease, pharyngeal pouch and wore bilateral hearing aids for presbycusis. During videofluoroscopy a circular, radiopaque foreign body was noted within the pharyngeal pouch resembling a button battery (figures 1 and 2). Given these unusual findings, the ENT team was urgently contacted by the speech and language practitioner for further assessment.

An emergency rigid oesophagoscopy was performed under general anaesthetic. A size 13 hearing aid battery (figure 3) was removed from the pharyngeal pouch using peanut grasping forceps. Following removal, further inspection of the pouch revealed minimal mucosal trauma with no evidence of mucosal necrosis or perforation. The patient was admitted overnight for observation and discharged the following day.

To our knowledge, there have been no previous reports within the literature of a button battery being removed from a pharyngeal pouch. A pharyngeal pouch (Zenker's diverticulum) represents a herniation of pharyngeal mucosa between the thyropharyngeus muscle superiorly and the cricopharyngeus

Figure 2 Magnified view of foreign body seen in figure 1.

muscle inferiorly. This can collect ingested material leading to a wide array of symptoms including regurgitation, dysphagia, weight loss, neck lump and discomfort.

The incidental presentation and age of the patient in our case is unusual as the literature commonly describes acute presentations of button battery ingestion in young children (<6 years).¹ Importantly, button battery ingestion should not be neglected within older patients, even in the absence of a history of foreign body ingestion. Litoviz *et al* reported that 15.5% of adults who swallowed button batteries had done so after mistaking it for

Figure 1 Videofluoroscopy image (lateral view) showing a foreign body resembling a button battery within a pharyngeal pouch.

Figure 3 The size 13 hearing aid battery removed from the patient's pharyngeal pouch.

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a medication tablet¹ while an earlier study by the same author found that 44.6% of ingested batteries were intended for hearing aid use.² Educating patients and carers of this potential error and advice on the safe storage of hearing aid batteries (separate from medication tablets) could help to avoid this.

Radiological evidence suggestive of a button battery within the upper aerodigestive tract requires urgent intervention with referral to the ENT surgeons. Button batteries cause mucosal trauma and perforation through electrolysis, pressure necrosis,

absorption of toxins and leaking of alkali chemicals.³ Intervention is time sensitive, with delays increasing the potential for significant morbidity. Access and visualisation of the pharyngeal pouch can be achieved using rigid oesophagoscopy and safe removal performed with grasping forceps.

Contributors RJ: consent, writing and submission of case report. AM: reviewing, editing and writing case report. PP: reviewing and editing case report.

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Learning points

- ▶ Pharyngeal pouch is a potential site for button batteries to lodge.
- ▶ Any button battery within the upper aerodigestive tract is a surgical emergency and requires urgent removal.
- ▶ As button batteries can be mistaken for medication tablets, patient and carer education of this potential risk and advice on the safe storage of hearing aid batteries is recommended.

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