

## A button battery in the nose

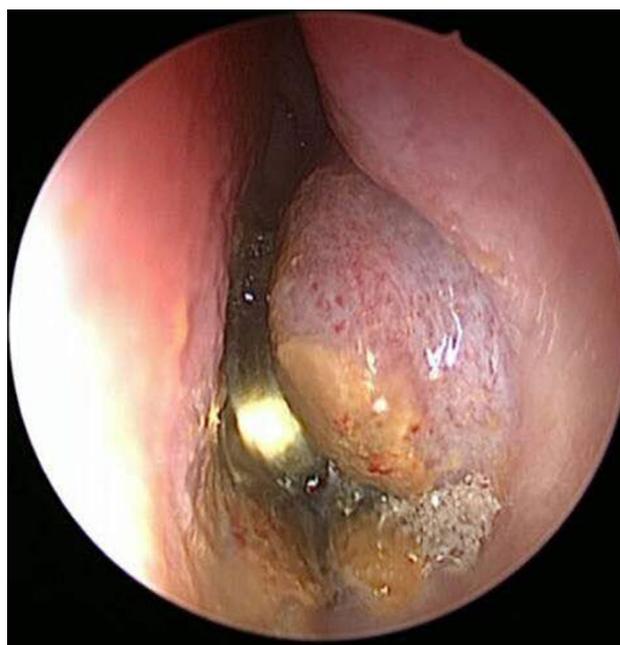
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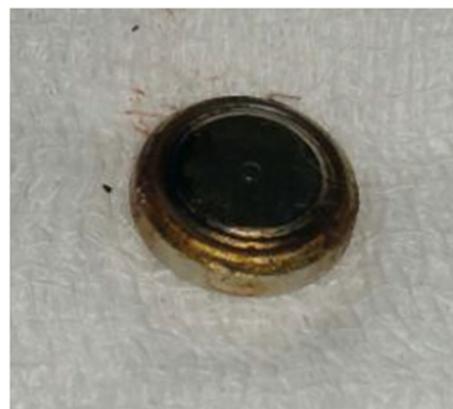
A 3-year-old boy presented with history of foul-smelling discharge from the left side of his nose starting 1 day earlier. On examination, there was extensive edema with slough in the left side of the nasal cavity. An X-ray study of the nose, lateral view, revealed a button battery in the nose (Fig. 1). The child was immediately taken to the operation theatre, and endoscopic removal (Fig. 2) of the button battery (Fig. 3) along with debridement of the necrotic tissue was done. The patient is being seen in regular follow-up, and has developed a perforation of the nasal septum that is being managed conservatively at present.



**Fig. 1** X-ray study of the skull (lateral view) showing the button battery in the nose



**Fig. 2** Endoscopic view of the button battery with surrounding tissue destruction



**Fig. 3** Removed button battery

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Button batteries cause extensive necrosis and tissue destruction. Possible mechanisms include spontaneous electrolyte leakage with liquefactive necrosis and destruction of tissue, and generation of electrical current causing an electric burn [1–3]. Children present with a unilateral nasal discharge that frequently is foul smelling and blood tinged. Clinical examination may miss the foreign body due to extensive edema, and diagnostic endoscopy is very handy in such cases. An X-ray study is confirmatory, and tells us the exact location of the foreign body [2]. Alkaline batteries cause more damage and complications like perforation of the nasal septum and nasal stenosis. Dislodgement with debridement of the necrotic tissue is best accomplished in the operating room under general anesthesia. Long-term follow-up of these patients is warranted for early detection and management of complications [1, 2]. The most effective management strategy is prevention through education of parents and child-care providers about the potential hazards associated with battery exposure [4].

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## Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Statement of human and animal rights** The author declares that all institutional ethical protocols have been followed while reporting this case.

**Informed consent** The author also declares that informed consent regarding this publication was obtained from the father of this patient.

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