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Re: Diagnosis, Management, and Prevention of Button Battery Ingestion in Childhood: An ESPGHAN Position Paper

To the Editor: We commend the ESPGHAN task force for bringing button battery morbidity to further attention (1).

The authors state that the optimal time window for battery extraction is within 2 hours after ingestion; however, that 2-hour threshold is arbitrary, as the tissue dissolution due to hydroxide state at the battery's negative pole proceeds in a gradual fashion. We believe that the faster the battery is removed, the better (2). This speed is needed because even if the remaining electric charge of the battery is insufficient for domestic usage, the current is enough to inflict serious damage within the confines of the esophagus. A simple chest X-ray suffices for the diagnosis and location of the battery within the patient. CT scanning to distinguish between a coin and a battery or to identify complications such as mediastinitis, fistulas and spondylodiscitis should only be performed when specifically indicated, because of the inherent delay in removing the battery.

In our conviction, the otorhinolaryngologist should be consulted primarily and before intubation to exclude damage to the oropharynx, hypopharynx, esophageal inlet and trachea (including esophago-tracheal fistula, as reported earlier) (3), and remove the battery straight away. We highly recommend that, in lieu of *sometimes*, it is *always* necessary to perform the endoscopic procedures in close collaboration between both pediatric GE and ENT specialists. Their joint expertise is likely to have even more potential to reduce injury severity and improve patient outcomes.

This is a medical emergency and speed and a predefined protocol are paramount.

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Reply to “Re: Diagnosis, Management, and Prevention of Button Battery Ingestion in Childhood: An ESPGHAN Position Paper”

Reply: We thank Prof. Dijkers and Prof. Ebels very much for the response to our position paper on button battery ingestion in childhood (1). Indeed, button battery ingestion is a medical emergency. As stated in the paper, immediate endoscopic removal after witnessed ingestion of a button battery lodged in the esophagus is indicated, preferably within 2 hours from ingestion as after this time window considerable mucosal injury of the esophageal wall may have already occurred.

In case of unwitnessed button battery ingestion, however, patients usually present when they are symptomatic, and complications have already occurred. In these patients, CT scanning should be considered before battery retrieval, as indicated in the diagnostic algorithm for button battery ingestion (Fig. 2). Also, in patients presenting with severe symptoms indicative of possible complications, or in case mucosal injury is identified during endoscopy, CT scanning (or MRI after battery retrieval) should be considered. However, CT scanning should not routinely be performed because this indeed may delay removal of the battery.

We highly value the involvement of Ear, Nose, and Throat (ENT) specialists willing to be consulted in case of each endoscopic procedure to retrieve a button battery. In our view, the ENT specialist in each case should be consulted in case of removal of a button battery from the (upper) airways or upper part of the esophagus.

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