Dear Editor:

We thank Anfang et al. for their results regarding the treatment of button battery (BB) injury in the last issue of *The Laryngoscope*. Although promising, these results should be interpreted with caution.

The high rate of esophageal perforation is questionable because it is far higher than that usually observed in humans. Although the thinness of the esophageal wall is well known in pigs, other factors related to the experimental protocol may have contributed to worsen esophageal lesions induced by BB. In the photographs, the BB used in the saline group appear more damaged in comparison to that used in the sucralfate or honey groups. Saline in contact with BB may have induced conductivity and thus artificially worsened esophageal lesions. The use of mineral water or artificial saliva would have better reflected the reality. Moreover, general anesthesia leads to a decrease in esophageal motility and subsequently could induce more severe esophageal lesions than what would have been observed in conscious animals.

A few questions would have been interesting to address. Does honey act similarly on the distal esophagus? BB were applied on the proximal esophagus, whereas about 30% of ingested BB are landlocked in the distal part. Does honey work when BB exposure lasts more than 1 hour? The current timeframe for performing gastrointestinal endoscopy varies from 2 to 4 hours. Does honey prevent long-term BB-induced esophageal injury? Animals were euthanized 7 days after BB exposure, whereas delayed deaths related to massive gastrointestinal bleeding have been reported in children despite BB removal.

The feasibility of such a treatment is also debatable because children frequently develop symptoms that make any oral administration difficult, and oral ingestion of honey before gastrointestinal endoscopy and general anesthesia might be responsible for other complications.

Finally, the typical circular esophageal lesions observed are deeper at the level of the interelectrode space where the electric current goes and where the OH$^-$$^\text{ions}$ can be found in high concentration. Hydrogen released at the cathode side may weaken the esophageal mucous and may also contribute to the genesis of these circular lesions. Use of sterile water may be efficient for preventing BB-induced esophageal lesions by diluting the ion content and limiting the conductivity.

In conclusion, this study is interesting and brings new evidence on BB-induced esophageal injury. However, those results are too preliminary to recommend the systematic administration of honey in patients who have ingested button battery.

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