Dislocation Of The Tip Of The Yankauer Suction Tube
S Neustein

Citation

Abstract
When practicing anesthesia, it is important to thoroughly check out equipment prior to usage. However, there can still be unexpected hazards, relating to defective equipment. I report a series of defective Yankauer suction tubes, in which the tips became dislocated. I recommend not using a Yankauer with a sump tip, or checking the tip prior to usage. If used, it should be checked for integrity following its usage.

CASE REPORT
In practicing anesthesia, it is important to thoroughly check out equipment prior to usage. It is important to be able to anticipate potential difficulties, and plan accordingly. However, it is also important to always be vigilant, and to expect the unexpected. I report for the first time, dislocation of the tip of the Yankauer suction tube, which occurred in three cases.

The first patient was a morbidly obese woman, who underwent thoracotomy and lung resection. Following the completion of surgery and prior to extubation, the pharynx was suctioned with a Yankauer suction tube (Kendall, Kennett Square, PA). The tube contains a rounded plastic tip at the end. When the Yankauer was removed from the mouth, the blue tip was noted to be missing. Fortunately, the tip was recovered from the patient's mouth. saved the defective Yankauer and the tip for subsequent analysis.

The next day, following the induction of general anesthesia in the first case of the day, laryngoscopy revealed the presence of secretions. The laryngoscope was removed, and the pharynx was suctioned with the Yankauer. Upon removal of the Yankauer tip, the blue tip was again observed to be missing, which was retrieved from the mouth. Fortunately, the tip was recovered from the patient's mouth. saved the defective Yankauer and the tip for subsequent analysis.

The patient was then intubated uneventfully, and the surgery proceeded without complication. Both of the defective Yankauers were saved, for subsequent analysis by the company. The adjacent Yankauers stored in the anesthesia cart were inspected, and the tips found to be intact. The lot number of these Yankauers were recorded. The anesthesia staff was advised of the potential hazard, and urged to carefully examine the tips of the Yankauer tubes prior to usage. The Director of Materials Management was also informed, who immediately quarantined the identified lot numbers. A hospital occurrence report was filled out. Kendall was also notified. The company did not feel that there was a widespread problem.

The problem had apparently not recurred for a few weeks. However, following a routine general anesthetic, the tip of the Yankauer was again observed to be missing the tip. A CXR was obtained while the patient was still in the O.R. A new Yankauer was placed on the lateral aspect of the patient's chest during the X ray, for comparison purposes. The tip of the Yankauer could be seen in the stomach of the patient. The findings were discussed with the patient, who was admitted to the hospital for overnight observation. The patient was discharged the following day, and had an uncomplicated postop course. He apparently passed the tip in the stools, uneventfully. Immediately following this event, again the department and staff were notified of the events by email. This time, multiple responders had acknowledged that they had observed tips of the Yankauers to have fallen off. One of the responders was even from an affiliated hospital. All of the Yankauers in the hospital were immediately removed from clinical use, and a substitute was urgently obtained that was one piece, and did not contain a sump tip. The company and the FDA were notified of this latest case as well.

DISCUSSION
The dislocation of the tips of the Yankauer tubes occurred initially in two successive patients in the same operating room, suggesting a possible problem with a specific lot. It later became apparent that the problem was much more
widespread, and even involved another hospital. In the case of a product that is found to be defective during its use, it is important to save the item for subsequent analysis. It also is important to also identify the actual lot number from the packaging, if this is possible.

When using equipment with small parts, it is necessary to be vigilant that the product stays intact. Aspiration or ingestion of anesthesia equipment is rare. Ingestion of a light bulb from a laryngoscope has been previously reported (1,2). There was one prior report, of the tip of a Yankauer tip which came off, during suctioning in the nose of a patient (3). In another report, a Yankauer suction tube which was supposed to have a tip at the end, had been manufactured without the tip; this defect was observed prior to use in a patient, while it was still in its original packaging (4).

In summary, this is a report of a series of cases, in which the tips of the Yankauer suction tubes became dislocated. When a defective product is encountered, it is necessary to notify the staff, to help prevent further occurrences in additional patients, and to query if there is a widespread problem. The use of email can assist in this endeavor. The affected lot numbers need to be quarantined. I recommend using a one piece Yankauer without a sump tip, or otherwise, inspecting the tip of the Yankauer tube as part of the routine check of the anesthesia equipment. Its integrity should also be checked following its usage.

CORRESPONDENCE TO
Steven M. Neustein, M.D. Mount Sinai Medical Center 1 Gustave L. Levy Place Box 1010, Dept. of Anesthesiology New York, NY 10029-6574 Telephone (212) 241-7467 Fax: 212-426-2009 Email: steve.neustein@msnyuhealth.org

References
Author Information
Steven M. Neustein, M.D.
Associate Professor of Anesthesiology, Department of Anesthesiology, Mount Sinai Medical Center