Letters to Editor

Pre-operative assessment by otolaryngologist and anaesthetist together is must to avoid potential crisis and surgical access to the airway must always be ready at hand.

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Retained foreign bodies: Vigilance is the price of safety

Sir,

Intra-operative events of retained surgical item (RSI), although uncommon, may occur which may result in significant complications.

Two such cases happened recently in our organization where retained items were discovered accidently and the proactive role of the anaesthesiologist averted a serious misadventure, proving eternal vigilance is the price of safety.

In first case, post-tonsillectomy, post-extubation, our patient had inspiratory stridor. Laryngoscopy was carried out to look for the cause and a broken 22G hypodermic needle was accidently discovered while mopping the oral cavity with a gauze piece [Figure 1a].

On confirmation, it was found not to be a part of the instruments used during the surgery.

Few days later, post-tonsillectomy again, while extubating, a 10-year-old child, an object, seemingly to be a blood clot or a tissue piece, was discovered inside the oral cavity. It was found to be the rubber sleeve (soiled with blood) of the teeth protector of Boyles Davis mouth retractor used during surgery [Figure 1b]. It probably had slipped off in the oral cavity while taking the retractor out.

Ingestion and aspiration of foreign objects may be life-threatening and involve damage to the digestive tract; or cause pneumonia, mediastinitis, sepsis. Sometimes; surgical intervention is needed to retrieve such objects.[1] Foreign body in the peritonsillar region needs a prompt removal because of possible migration to the vital structures, the carotid artery being the most worrisome target.[2]

A sentinel event is defined as a relatively infrequent, clear cut event that occur independently of a patient’s condition; commonly reflect hospital system and process deficiencies; resulting in unnecessary outcomes for patients.[3]

In the first case, it was inferred that the broken needle had accidently slipped inside when the gauze pieces were used for mopping intra-operatively. It was probably inside the gauze pieces, which are manually prepared by our nursing orderly in the operation theatre area and then sterilized in central sterile supply department.

Figure 1: (a) Broken hypodermic needle, (b) rubber sleeve of Boyles Davis retractor
In the second case, probably a lack of familiarity with the instrument on part of the nurse; and a lack of vigilance both on the part of the nurse as well as the surgeon; who didn't report the missing part of the instrument at the end of the procedure.

The literature is full with reports of missing gauze pieces (gossypiboma), laryngoscope bulb, avulsed teeth, suture needles after surgery. The needle here was an extraneous object that was inadvertently packed inside the rolled gauze pieces to be used intra-operatively.

The literature is again replete with reports of retained part of surgical instruments such as coating of laparoscopic instrument, sleeve of an orthopedic tap, metallic clamp button from stapler and suction catheter segment. The key contributing factors are difficulty in retrieving the instrument leading to peeling off of a piece of instrument coating, failure to check the integrity of the instrument at the end of the procedure, not reading thoroughly the whole X-ray from the day of procedure, and; communication gap among team members that lead to a delay in searching of the missing part of the instrument.

A retained surgical item (RSI) is a surgical patient safety problem. RSI refers specifically to the surgical material (tools, supplies and equipment) used by surgical providers to heal, but when inadvertently left in patients, can cause harm. RSI cases have been reported from around the world for decades; and surgical paraphernalia have been left in practically every body cavity after any kind of case.

Sponges, needles; and small miscellaneous objects can be retained and their chance of retention is not based upon the size of the wound; thus, they should be accounted for in all cases. The frequency of RSI is anywhere between 1 in 100 and 1 in 5000. Various risk reduction strategies have been proposed. As for the first case a dedicated space be identified when preparing the gauze pieces, involved personnel should be vigilant enough of not inadvertently packing any untoward object apart from a careful observation by the nurse, doctor; and the counting at the end of the procedure, placing gauze pieces/abdominal pads at a designated place; and to undertake a final wound exploration before the closure.

As for the second case, consider using non-insulated metal outer tube for specimen retrieval, enforce checking instrument integrity before wound closure, standardize any instrument in use and to delete any obsolete or unnecessary instrument, use safely designed surgical device or instrument, and to enhance the communication between working parties if any discrepancy. The hospitals should adopt policies for reporting, auditing and a subsequent root cause analysis of such sentinel events and adopt a “Safe Culture, Safe System and Safe Practice” approach.

The prevention of RSIs will therefore require practice change, knowledge; and shared information between all perioperative personnel.

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