

GUIDELINE ESSENTIALS

CASE STUDY

Retained Surgical Items

Retained Broken Outflow Cannula

Does the scrub person verify instruments are complete before handing them to the surgeon?

When an instrument is returned to the sterile field after use, is it inspected for breakage?

If it is noted that a piece may have fragmented, does the surgeon investigate to see whether a fragment may have been retained?

Are instruments checked for breakage in the sterile processing department before processing?

A 69-year-old woman presented to the orthopedic clinic with right knee pain that had bothered her for about 6 months. Six years earlier, the patient had undergone a right knee arthroscopy and had no complications following the procedure. A radiograph revealed a metallic object in the knee joint that was consistent with the tip of an outflow cannula used in knee arthroscopy.

The patient underwent a procedure to arthroscopically remove the foreign body. The joint had moderate amounts of scar tissue and scarring at the base of the anterior cruciate ligament. The cannula was carefully debrided from the anterior cruciate ligament to prevent damage. Fluoroscopy was used to determine that there were no additional metal foreign objects or debris in the knee. The outflow cannula had broken in such a way that it could not have been easily detected. The breakage occurred at the tip of the outflow cannula.

The patient's postoperative course was complicated by deep vein thrombosis, which was treated with anticoagulation therapy.

TAKEAWAY

Although this broken cannula fragment was not noticed at the end of the procedure, the breakage could have been discovered during processing or the next time the cannula was used. This case emphasizes the importance of diligently checking all instruments before and after they are introduced into the patient's body and investigating when a breakage is noted. It may be necessary to initiate a reconciliation process (eg, radiograph, wound exploration) to locate the missing fragment.

Reference

Bansal M, Heckl F, English K. Retained broken outflow cannula recovered 6 years post-knee arthroscopy. *Orthopedics*. 2011;34(12):e945-e947.

GUIDELINE ESSENTIALS

CASE STUDY

Retained Surgical Items

Small Bowel Obstruction Caused by an Intraperitoneal Staple

Does the surgical team attempt to retrieve free staples and clips lost in the abdomen during laparoscopic surgery?

A 28-year-old woman presented to a local urgent care facility with acute epigastric and abdominal pain. She was diagnosed with gastroesophageal reflux disease and was prescribed medication. The following day, she presented to the emergency department with continued abdominal pain. She tolerated food well and had no nausea or vomiting. She was afebrile, did not have abdominal distention or tenderness, and was without leukocytosis. Her medical history was unremarkable, but her surgical history included laparoscopic appendectomy, cesarean delivery, and open umbilical hernia repair, all within 3 years' time.

A computed tomography scan showed multiple loops of dilated bowel within the mid abdomen, mesenteric edema, multiple air-fluid levels, and surgical clips in the region of the jejunum. The patient was admitted for observation.

The next morning, the patient's abdomen was distended and tender, and the physician took the patient to the OR for a diagnostic laparoscopy. The surgeon examined the entire length of the bowel and noted that in the proximal jejunum, the bowel was folded back on itself, causing a partial obstruction that did not open upon manipulation. The surgeon performed a blunt dissection and found a single, open surgical clip and a superficial injury to the small bowel where it had been anchored in the opposing loop. The clip was removed, and the bowel was not perforated. The patient was discharged home after an uneventful hospital stay.

TAKEAWAY

An increasing number of laparoscopic procedures are being performed, and the majority of the time loose staples do not cause any complications. However, when they do, they can be a significant source of morbidity. Using graspers or suction, attempts should be made to retrieve all loose staples.

Reference

Chepla KJ, Wilhelm SM. Delayed mechanical small bowel obstruction caused by retained, free, intraperitoneal staple after laparoscopic appendectomy. *Surg Laparosc Endosc Percutan Tech*. 2011; 21(1):e19-e20.