CASE REPORT

An Unusual Cause of Chronic Abdominal Pain: Retained Portion of Artery Forceps

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ABSTRACT

Errors in medicine are common and can cause harm. Medical errors during surgery are usually under-reported and not well studied. During the past decade, increased interest in medical malpractice has been shown by both the public and the authorities. A particularly high risk of medical errors is seen in emergency settings, unexpected change in procedure, or in patients with a high body mass index. Visually or acoustically controlled monitoring before wound closure is recommended to eliminate human error as thoroughly as possible. Prevention remains the key to solving the problem.

Case report We report the case of a 28-year-old male who presented with chronic pain abdomen for 6 years. On extensive investigations he was found to have a portion of retained artery forceps, intraduodenal from a previous emergency surgery done 6 years ago for firearm abdomen. A review of the relevant literature is also presented.

Conclusions Retained instruments or sponges after surgery are a complication of surgery and can be treated surgically. High index of suspicion is the key to correct diagnosis

INTRODUCTION

Retained foreign body in the abdominal cavity following surgery is a continuing problem. Despite precautions being taken, the incidence is grossly underestimated[1]. There has been increasing interest in medical malpractice in the last decade shown by both the public and the authorities. Malpractice is likely to be considered if an adverse event occurs shortly after medical intervention, but complications might lead to impairment or death of the patient even years after surgical treatment. Patient outcome will differ depending on the nature of the object left behind and the individual patient's situation. One persistent but poorly understood error is leaving sponges or instruments inside patients who undergo surgery[2]. Such incidents may result in major injury. In a report on 24 cases of foreign bodies retained after intra abdominal surgery, complications observed included perforation of the bowel, sepsis, and in two patients, death. The retention of sponges and instruments is considered by many to be avoidable, and when it occurs, it can attract wide, critical press coverage. Yet these errors persist. Although the incidence has not been determined, estimates suggest that such errors occur in 1 of every 1000 to 1500 intra abdominal operations.

There is great uncertainty about why these incidents occur and how to prevent them. The standards of the Association of Operating Room Nurses have long required that only sponges detectable on radiography be used and that they be counted once at the start and twice at the conclusion of all surgical procedures though this practice is still not adapted here. The standards also recommend that instruments be counted in all cases involving an open cavity. If a count is incorrect — that is, not all materials are accounted for — then radiography or manual re exploration is to be performed. Some incidents appear to result from a failure to adhere to these standards. However, in the majority of cases, foreign bodies go undetected despite proper procedures.

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Here, we present an interesting case where a 15-cm forceps was left in the duodenum and the patient presented with chronic abdominal pain 6 years after surgery.

CASE REPORT

A 28 years old obese male presented to the r OPD of our hospital with presenting complaints of pain abdomen since last 5 years. He had an emergency laparotomy almost 6 years ago for firearm abdomen, in which his ileum was repaired. 1 year after the laparotomy he started having pain in his abdomen intermittent in nature, mild to moderate in intensity, located in right upper abdomen, dull in character, having no particular relation to meals, having no specific aggravating and relieving factors. Pain was not associated with any GI upsets or fever. He was otherwise well.He has been prescribed multiple omeprazole, H2 receptor antagonist and antacids along with spasmolytics during these 5 years but was not relieved. On examination he was well built young man who appeared well with normal vitals. Abdominal examination revealed mild tenderness in right hyochondrium, lumbar and epigastric region. No visceromegaly, or free fluid was found. Bowel sounds were audible. On investigations all his routine parameters were within normal limits. His abdominal ultrasonography was normal. Then his X-Ray erect abdomen was advised, which to our surprise showed half artery forceps in duodenum region (figure 1, 2). So we decided to explore the patient once again. On exploration, operative findings were, old laparotomy scar mark in midline, omental adhesions with anterior abdominal wall. A foreign body (artery forceps) placed transversely traversing first part of duodenum, tip close to pylorus abutting left lobe of liver, adherent to anterior abdominal wall and handle in right lobe of liver making adhesions with right kidney. Forceps was removed, after removing adhesions from liver and kidney(figure 3). Duodenum was repaired and gastrostomy was done.

Fig.1

Fig. 2

Figure: 3

DISCUSSION

Leaving behind of foreign bodies in a patient after surgery is an uncommon but dangerous error[1]. The foreign bodies left inside patients after surgical procedures are presumably higher than reported in the literature. According to US insurance statistics, the incidence amounts to 1 in 1,500 surgical procedures.[3] But local data is lacking in this aspect also as many other fields and is one of the most neglected fields As a basic principle, and also from a legal perspective, it is necessary to determine if a foreign body was left *in situ* accidentally or simply forgotten. In 70% of cases, fabric items like sponges are left behind, while the remaining 30% are metal instruments.3 Patient outcome differs depending on the nature of the object left behind and the individual patient's situation[2]. Usually, metal items cause more acute clinical symptoms at an earlier time after the operation. Fabric items will tend to induce, in the absence of contamination, a chronic progression of symptoms over several years. In our case this was contrary to this rule a metal object was retained but produced chronic symptoms over time. Preoperative diagnosis is usually made using plain abdominal X-ray, ultrasonography and computed tomography (CT). CT seems to be the most promising tool to diagnose fabric foreign bodies.[4] However, apart from radio-opaque markers, there are no specific signs for surgical sponges on CT as abscesses and haematoma can be confused with fabric. It is estimated that in a typical tertiary care hospital, there will be at least one case of retained sponge or instrument a year. Regardless of how retained sponges or surgical instruments are discovered, when recognized, they must be removed surgically[5, 6]

While the practice of sponge instrument counts is a time-honoured and simple preventative measure, it is heavily dependent on human performance and is thus subject to human error. Various factors responsible for postoperative retained foreign bodies include emergency surgery, high body mass index, unplanned change in the surgical procedure, multiple surgical teams involved in the operation including staff nurses and OT assistants, number of major surgical procedures, and incorrect instrument/sponge count[2]. In one case control study it was found that the retention of a foreign object was nine times as likely when an operation was performed on an emergency basis and four times as likely when an operation involved an unexpected change in procedure. Each of these factors marks situations in which disorganization is increased so that it becomes more difficult to keep track of materials[1]. One indication of this relation is our finding that emergency operations were significantly more likely to involve a failure to perform a count of sponges and instruments. The increased risk associated with increased body-mass index probably reflects the amount of room there is in a patient in which to lose a sponge or instrument. In our case, there was neither any record about the type of surgery done nor any evidence of counts being performed at the time of surgery[7]. Civil and criminal processes against physicians due to retained foreign bodies following surgery will not be uncommon in near future within the framework of the booming liability disputes in hospitals these days.

Precautionary measures in terms of risk management must be established and strictly respected, especially in high-risk settings according to the institutional guidelines. Retained foreign bodies, despite being rare, present a very serious problem to the patient when they do occur. Risk factors should be identified and properly taken care of so that such problems can be avoided

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