Laparoscopic Removal of Retained Surgical Gauze

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INTRODUCTION

Term of gossypiboma (textiloma, cottonoid, gauzoma, and muslinoma) is used to describe a retained surgical pad or gauze in the body after an operation. Retained postoperative foreign bodies, of which sponges are the most common, is a preventable condition and almost always iatrogenic.[1,2] Gossypiboma may present acutely or subacutely and some times it may be symptom free.[1,3] Laparoscopic removal of retained surgical pad, gauze, and instruments has already been reported.[3-7] Herein, we present a case of abdominal gossypiboma 4 years after hysterectomy. We used laparoscopy as the therapeutic tool.

CASE REPORT

A 53-year-old woman presented with acute right renal colic. After medication and pain relief, she was sent for radiologic examination. A 10-mm stone in the right distal ureter and a forgotten surgical gauze in the left side of the pelvis were seen on kidneys, ureters, bladder x-ray (Figure 1). The ureteral stone was confirmed by intravenous pyelography. She had undergone abdominal hysterectomy 4 years earlier and had vague abdominal discomfort and anorexia after the operation.

On abdominal examination, there was a hypogasteric vague tenderness and firmness. Laboratory findings were within normal limits. Computed tomography scan revealed a foreign body measured 5 × 3.5 cm with heterogeneous internal structure in the left iliac fossa that had been surrounded by the small intestine and the colon (Figure 2). Transurethral

Figure 1. Kidneys, ureters, bladder x-ray shows right distal ureteral stone and retained gauze in the left side of the pelvis.

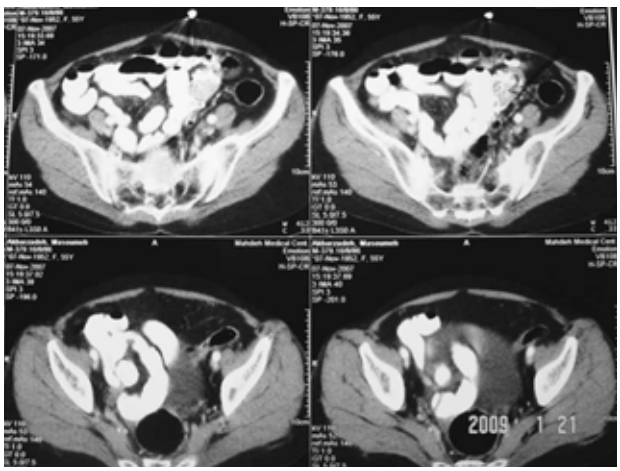

Figure 2. Computed tomography scan reveals a mass measuring 5 × 3.5 cm.

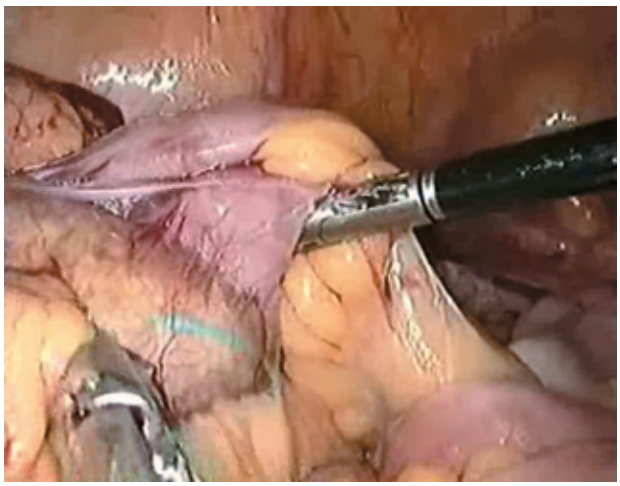

Figure 3. Radiologic green marker is seen through peritoneal layer.

ureterolithotripsy and laparoscopy were planned.

Under general anesthesia and lithotomy position, ureteroscopy and pneumatic lithotripsy were performed, particles of calculi were removed, and a 4F-ureteral catheter was inserted. Thereafter, laparoscopy was done in supine position with a 12-mm infra-umbilical port and two 5-mm ports in the left and right lower quadrants. The omentum adhered to the abdominal wall and the small bowel loops, and the sigmoid colon adhered to the gauze, which together made up a mass. The gauze had been sealed with the peritoneum and its radiologic green marker was seen through the peritoneum (Figure 3). Using sharp dissection, the omentum and bowel loops were carefully separated. The sponge was removed by making an incision in the peritoneal part of the mass. After irrigation and suction of the bed of the mass, a Nelaton catheter was left in place as a drain.

The patient was out of bed on the 1st postoperative day and started oral fluids from the 2nd postoperative day. There was no complication during and after the surgery, and the patient was discharged on the 4th postoperative day.

DISCUSSION

Leaving gauze or rarely instruments behind after any surgery is a misadventure and is solely iatrogenic.[1,8,9] Swabs, packs, towels, or instruments may be left in the body cavities after the surgery.[9] Gawande and colleagues studied 61 patients with retained foreign bodies. They found surgical sponge in 69% of subjects and instruments such as clamp, retractor, and electrode in 31%.[10] Gossypiboma is most frequently diagnosed in the intra-abdominal cavity; however, it can also be seen in the vagina, the spinal canal, the face, the brain, the paraspinal muscles, the thorax, the legs, and the shoulders.[11,12] Rodrigues and associates reported a case with a 33 cm × 5 cm ribbon malleable retractor retained intra-abdominally for 14 years.[6] We had also a case of retained malleable retractor inside the abdomen for 45 days (unpublished personal experience).

Gawande and associates reported that the incidence of gossypiboma and retained instruments varied from 1/8801 to 1/18 760 of inpatient operations at general hospitals. It has been estimated that more than 1500 cases of retained foreign bodies occur annually in the USA.[10] Several risk factors have been reported for leaving sponge and instruments, including an emergency operation, an unexpected change in procedure, long duration operations, hurried sponge counts, inexperienced staff, inadequate number of staff, change in operating room staff, patients' unstable condition, and obesity of patients.[2,10,11] Clinical symptoms of gossypiboma may vary from mild discomfort, pain, and malabsorption syndrome to severe pain, fever, and bowel obstruction and can present years after the initial surgery.[3] About one third of patients with gossypiboma remain asymptomatic and are either detected by radiologic investigations such as computed tomography scan or intra-operatively after the initial operations are long forgotten.[1,8,11] If the patient is asymptomatic and retained surgical sponge is diagnosed accidentally, it is recommended to be removed surgically or endoscopically.[11]

Laparoscopy was found to provide a quicker diagnosis. The added advantage of providing a simultaneous therapeutic benefit further supports laparoscopic intervention.[3] There have been many reports on laparoscopic removal of foreign or migrated bodies. Rodrigues and colleagues reported laparoscopic removal of a retained large malleable retractor 14 years after initial procedure.[6] Sharifiaghdas and coworkers

reported a case of migrated intrauterine device into the peritoneal cavity that was removed laparoscopically.[4] Singh and colleagues reported a case of laparoscopic diagnosis and removal of sponge 14 days after the surgery,[3] while Olivier and Devriendt reported laparoscopic removal of a gauze pad left in the abdomen for 22 years.[5]

Our case presented with renal colic and her retained gauze was detected accidentally; however, she had mild abdominal discomfort and malabsorption. After radiologic investigation, we decided to remove the ureteral stone and forgotten gauze in a same session anesthesia. We did both surgeries endoscopically. Every effort should be made to prevent this medical misadventure. If we keep vigilance and good operating room staff, gossypiboma occurrence can be prevented. Recently, all operating rooms have been equipped with laparoscopic set and laparoscopic surgeries are done routinely. Therefore, laparoscopic surgery is an excellent method for rapid diagnosis and easily removal of the forgotten pads or instruments, and can be used in early or delayed diagnosed cases.

CONFLICT OF INTEREST

None declared.

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