

Retained Surgical Gauze Presenting With Gross Hematuria: A Case Report

Babak Javanmard, Mohammad Reza Yousefi, Behrouz Fadavi, Morteza Fallah Karkan *

Keywords: Gossipyboma; prostatectomy; surgical gauze; gross hematuria.

Gossipyboma is a mass which is made around a cotton sponge or abdominal compress retained in a patient during surgery accidentally. Patients manifest with either acute or chronic symptoms due to complications. Here in we reported an 89-year-old man case of transvesical migration of gossipyboma who presented with gross hematuria with a history of transvesical prostatectomy 6 years ago. Patient underwent exploratory laparotomy with repairing of the bladder and peritoneum. He had no complications during surgery and was subsequently discharged.

INTRODUCTION

Gossipyboma (textiloma, cottonoid, gauzoma, and muslinoma) is a mass which is made around a cotton sponge or abdominal compress retained in a patient during surgery accidentally^(1,2). Its incidence during surgical procedures, reported in several case reports, is of about 1/1000–1500 procedures on average⁽³⁾. Patients manifest with either acute or chronic symptoms due to complications. Each foreign body poses a challenge to the urolo-



Figure 1. Plain abdominal X-ray shows a retained surgical gauze (black arrow) in the abdominal cavity.



Figure 2. Gross appearance of the retained gauze.

Urology department, Shohadaye Tajrish hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

*Correspondence: Urology resident, Urology department, Shohadaye Tajrish hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Tel: +98-9111863352. E mail: Mortezafallah.md@gmail.com.

Received October 2016 & Accepted June 2017

gist and treatment has to be individualized according to the size and its nature and age of the patient⁽⁴⁾. Other manifestations are either exudative like granuloma around the surgical sponge/gauze, abscess formation or aseptic complications such as adhesions or encapsulation months to years after surgery⁽⁵⁾. Although open surgery is the most common approach in the treatment of Gossipyboma, endoscopic extraction or other minimal invasive surgery has also been reported⁽⁶⁻⁸⁾. Herein we reported a case of transvesical migration of gossipyboma presented with gross hematuria.

CASE DESCRIPTION

An 89-year-old man was hospitalized with chief complaint of gross hematuria for 2 days. Physical examination, showed a hypogastric tenderness and firmness in abdomen. Laboratory findings were within normal limits. Other examinations were normal. He had a history of open prostatectomy and bilateral herniorrhaphy at another hospital 6 years before admission. Computed tomography scan revealed a foreign body with heterogeneous margin in the pelvis that was surrounded by bladder tissue. Gauze retention in the posterior vesical fossa with migration into the bladder and peritoneal cavity was noted (**Figure 1**).

Patient underwent exploratory laparotomy with repairing of bladder and peritoneum under spinal anesthesia. During operation, a Gossipyboma formation, about 8 cm in size, was noted with penetration into the bladder and abdominal cavity, The gauze was embedded in the granulation tissue surrounding the Gossipyboma. The gauze was removed successfully (**Figure 2**), and the penetrated bladder and abdominal fascia was repaired. There was no complication during and after surgery, and the patient was discharged after making an uneventful recovery.

DISCUSSION

Leaving gauze or rarely instruments behind after any surgery is a misadventure and is solely iatrogenic⁽⁹⁾. Swabs, packs, towels, or other instruments may be left in the body cavities after surgery⁽¹⁰⁾. Rafique in a case series mentioned that 5 of 16 patients reviewed had retained surgical gauze (31.25%) in Pakistan⁽⁷⁾. Gawande et al. found that the incidence of Gossipyboma and retained instruments varied from 1/8801 to 1/18760 of inpatient operations at general hospitals and it has been estimated that more than 1500 cases of retained foreign bodies occur annually in the USA⁽¹¹⁾. Change in operating room staff, an emergency operation, an unexpected change in procedure, inadequate number of staff, long duration operations, hurried sponge counts, inexperienced staff, patients' unstable conditions, obesity of patients, excessive blood loss in trauma patients, and a failure to count surgical instruments and sponges are risk factors for leaving gauze or other instruments in body cavity^(11,12). The three most important risk factors are emergency surgery, unplanned change in the operation, and body mass index^(2,13).

Here we reported a Gossipyboma in vesical wall after prostatectomy which had been performed 6 years before which manifested by gross hematuria. Nishikawa et al. reported a case of bladder tamponade caused by a foreign body (gauze) in the bladder of a 24-year-old

man treated with the Lambotte wire and screw for repair of pubic bone fracture caused by traffic accident. Their case manifested after one year with gross hematuria⁽¹⁴⁾. Plain abdominal radiography, sonography, fistulography, CT scan and MRI are useful for diagnoses^(2,17). Time to presentation of Gossipyboma can be early or very late after surgery and with different manifestations. Patients undergoing multiple abdominal surgeries with chronic abdominal pain must undergo imaging including abdominal radiography which must be considered carefully to see the surgical gauze line.

In conclusion; although several cases of retained surgical gauze have been reported previously, here we presented a migration of gauze to urinary bladder which is rare and to our knowledge there is no previous reported case after prostatectomy. In our case, the chronic inflammation around the gauze made a Gossipyboma that rubbed out into the urinary bladder and presented as gross hematuria. Small symptom following surgeries even after many years should be considered as an important clue to find the Gossipyboma. It is recommended that patients are followed up carefully to decrease later mismanagement and lower the rate of Gossipyboma.

ACKNOWLEDGEMENT

Patient Permission

We took a written consent from patient to report his images for promotion of knowledge.

REFERENCES

1. Zantvoord Y, van der Weiden RM, van Hooff MH. Transmural migration of retained surgical sponges: a systematic review. *Obstetrical & gynecological survey*. 2008;63:465-71.
2. Erdil A, Kilciler G, Ates Y, et al. Transgastric migration of retained intraabdominal surgical sponge: gossypiboma in the bulb. *Internal Medicine*. 2008;47:613-5.
3. Dhillon JS, Park A. Transmural migration of a retained laparotomy sponge. *The American Surgeon*. 2002;68:603-5.
4. Van Ophoven A, DE KERNION JB. Clinical management of foreign bodies of the genitourinary tract. *The Journal of urology*. 2000;164:274-87.
5. Govarjin HM, Talebianfar M, Fattahi F, Akbari ME. Textiloma, migration of retained long gauze from abdominal cavity to intestine. *Journal of Research in Medical Sciences*. 2009;15:54-7.
6. Younesi M, Ahmadnia H, Asl Zare M. An unusual foreign body in the bladder and percutaneous removal. *Urology journal*. 2009;1:126-7.
7. Rafique M. Intravesical foreign bodies: review and current management strategies. *Urology journal*. 2008;5:223-31.
8. Lv Y-X, Yu C-c, Tung C-F, Wu C-c. Intractable duodenal ulcer caused by transmural migration of gossypiboma into the duodenum—a case report and literature review. *BMC surgery*. 2014;14:1.

9. Cheng T-C, Chou AS-B, Jeng C-M, Chang P-Y, Lee C-C. Computed tomography findings of gossypiboma. *Journal of the Chinese Medical Association.* 2007;70:565-9.
10. Szentmariay IF, Laszik A, Sotonyi P. Sudden suffocation by surgical sponge retained after a 23-year-old thoracic surgery. *The American journal of forensic medicine and pathology.* 2004;25:324-6.
11. Gawande AA, Studdert DM, Orav EJ, Brennan TA, Zinner MJ. Risk factors for retained instruments and sponges after surgery. *New England Journal of Medicine.* 2003;348:229-35.
12. Sümer A, Carparlar MA, Uslukaya Ö, et al. Gossypiboma: retained surgical sponge after a gynecologic procedure. *Case reports in medicine.* 2010;2010.
13. Cruz Jr RJ, de Figueiredo LFP, Guerra L. Intracolonic obstruction induced by a retained surgical sponge after trauma laparotomy. *Journal of Trauma and Acute Care Surgery.* 2003;55:989-91.
14. Nishikawa K, Ohyama A, Kan E, et al. [Case report: a foreign body (gauze) in the bladder]. *Hinyokika Kyo.* 1991;37:287-9.