

# Urinary Retention Due to Recto-Vesical Haematoma After Laparoscopic Appendectomy

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## Abstract

Laparoscopic approach is used as standard surgical approach for most of surgical modalities, even in emergency cases. Laparoscopic appendectomy (LA) is the standard for appendectomy in advanced clinics. We know advantages of LA. However, complications may occur. The patient was referred to urology outpatient clinic with lower urinary tract symptoms one week after LA. Radiology evaluations showed giant hematoma pressing on bladder. Trocar site injury is one of unwanted complications of laparoscopic procedures because of bleeding, however the surgeons should check for bleeding after removing trocars at the end of operation. Hematoma was evacuated with a catheter that was placed by department of interventional radiology. LA is well established but complications may occur. Moreover, these can be managed by minimally invasive methods.

**Keywords:** Complication, laparoscopy, lower urinary tract symptoms

## INTRODUCTION

Acute appendicitis is one of frequent cause of acute abdomen and appendectomy can provide complete cure for the patients. Nowadays, laparoscopic approach is used for appendectomy (1). Laparoscopy is a minimally invasive surgical technique that can be used successfully and safely for most of the surgical interventions as well laparoscopic appendectomy (LA). Today, we know that LA is superior to open surgical one when evaluated in terms of postoperative infection, hospitalization time, complications like post-op pain, notably in young patients (1). Although, LA is a safe and proved procedure, the experienced surgeons may have complications (2).

On the other hand, obstruction, infection, pharmacologic, and neurogenic factors are the main causes of urinary retention (3). Urinary retention is one of the most significant complications or long-term outcome of benign prostatic hyperplasia (3). Additionally, a mass pressing on the bladder can mimic lower urinary tract symptoms.

Here, we presented a case of urinary retention due to recto-vesical hematoma after LA.

## CASE PRESENTATION

A 48-year-old male patient without any previous urological complaint was admitted to urology outpatient clinic with urinary retention. In detailed history, he had LA due to acute appendicitis seven days ago. The patient had reduced stream of urine two days after surgery and has urinary retention seven days after surgery. Foley catheter was inserted and the patient underwent radiological examinations. Ultrasonography showed recto-vesical hematoma compressing on the bladder and computed tomography supported these findings (Figure 1). Percutaneous hematoma drainage was performed. The patient spontaneously urinated after this intervention. The drainage catheter was removed five days later. Now, the patient is under control at urology outpatient clinic for annual measurement of prostate specific antigen and digital rectal examination.

## DISCUSSION

Trocar site complications are rare and are seem 7/100000 laparoscopic cases (4). Bleeding from the trocar site is virtually frequent complication. However, haemoperitoneum that may



**Figure 1.** Recto-vesicale hematoma compressing on the bladder.

cause to another emergency or to huge hematomas on the abdominal wall are rare (4). Especially bleeding or abdominal wall hematoma may need to blood transfusion (2). Thus, hospitalization time is prolonged (2). We here presented a case of abdominal haematoma and lead to lower urinary tract symptoms (LUTS) after LA.

It is very important to be aware a complication like this during and after the operation. Haemostasis can be provided by performing deep sutures near trocar entrance area or by the placing a Foley catheter in to cavity from thorough trocar route and filling then pulling the catheter from this area. If these methods fail, exploration of the bleeding area can be required. Conservative, an artery embolization, and/or surgical interventions is used for threatening hematomas after LA (2). Because of our case admitted seven days after LA, we referred the patient to the department of interventional radiology unit. A drainage tube was inserted to haematoma area.

Ureteral oedema can be accepted as one of the cause of localized peritoneal reaction to intraoperative bacteraemia for the boys more sensitive because their appendix is closer to the bladder than girls and girls' internal genitalia are based between the appendix and the bladder. Some inflammation on posterior bladder wall may relate to a localised peritonitis (2). Urinary transfer from kidney to bladder may be under risk of arrest due to complete ureteral obstruction (4).

On this demand, a very rare case of LUTS after LA was presented, here. The haematoma was drained and the patient is now under urology outpatient clinic.

## CONCLUSION

Laparoscopic procedures are minimally invasive surgical treatment option. However rare complications may occur. Haematoma compressing the bladder and/or ureters should be considered in patients with urinary retention during postoperative period of LA.

**Informed Consent:** Written informed consent was obtained from patient who participated in this case.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept - SNG; Design - YA; Supervision - YA; Resource - YA; Materials - OK; Data Collection and/ or Processing - SO; Analysis and/or Interpretation - YY; Literature Search - SNG; Writing - SNG, YA; Critical Reviews - YA.

**Conflict of Interest:** The authors declare that there are no conflicts of interest.

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