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(CASE REPORT)

Successful conservative treatment for a non-exteriorised Vesicocutaneous fistula

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Abstract

Cystic cutaneous fistula refers to an abnormal passageway or tunnel that forms between a cyst and the skin surface. A cyst is a closed sac or pocket containing fluid, air, or other substances, and when a connection forms between this cyst and the outer skin, it leads to the development of a fistula.

The diagnosis is mainly clinical and X ray based. Primarily affects both male and female adults. Mainly caused by infection, trauma and history of recent trans cystic or cystic surgery for bladder stones, benign prostatic hyperplasia and other causes. Although treatment usually includes antibiotics, percutaneous or open surgery procedures may be needed to treat the fistula.

Keywords: Bladder Surgery; Blader Stones; Benign Prostatic Hyperplasia; Post Surgery Bladder Fistula.

1. Introduction

Cutaneous bladder fistula is a rare post bladder surgery complication resulting in a great deal of inconvenience, discomfort and disability for the affected patient male and female. It can occur after bladder, prostate and pelvic surgery with secondary chronic urine retention and a dilated upper urinary tract. The diagnosis is clinical with urine coming through the patient's skin and x ray assisted showing the fistula trajectory. The treatment is based on a surgical intervention after admiration of antibiotic drugs and anti-inflammatory treatment.

We report a case of an elderly patient with a non-exteriorized bladder fistula after a recent intervention to treat a bladder stone.

2. Case report

An 82-year-old patient having diabetes type 2 as a medical history and a surgical history of open surgery of a bladder stone. Patient initially admitted in a state of evident clinical urine retention. describing the impossibility to pass urine normally associated with a two-side lumbar pain with an overflow incontinence all associated to fever and shivering and conservation of the general state. All evolving for the last three months.

The clinical examination found a patient with leg oedema with a fairly large hypogastric bulge gaining in size in the last couple of months. The patient was feverish, with a bad smelling urine manifested from pyuria. The rectal examination found a prostate estimated at 40 cc, was warm with no nods or surface abnormalities. The rest of the clinical assessment didn't show any alarming hemodynamic state.

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Patient underwent a biological workup showing a major inflammatory syndrome as well as an acute kidney injury without signs of malignant hyperkalemia. No PSA was demanded due to the inflammatory occurrence. The patient had a CT scan that showed a symmetrically dilated upper urinary tract with a conserved cortical index, a major urine retention which seemed chronic. The bladder communicated with a fairly large collection on its anterior pole coming into fairly close contact with the anterior skin with a sludge composition on the slope side of this collection. We noted in the portal window a passage of the contrast agent without communication between the collection and the skin of the patient. The prostate was estimated at 50 cc being obstructive. No other abnormalities were noted on the initial CT scan

Figure 1 Axial image of the collection and fistula before catheterization

Figure 2 Sagital image showing the collection and the bladder before treatment

After admission, we initially proceeded to give the patient antibiotics on a large spectra following the realization the cyto bacteriological exam. A foley catheter was put in place without incidents. The urine sac initially had 1200 cc upon catheterization, with pyuria aspect then cleared on the following day (1200 cc per day). The patient marqued apyrexia

in the second day of antibiotic treatment. The kidney injury slowly normalized on the 6 th day as well as the inflammatory phenomenon. We continued antibiotic treatment associated with the in-place catheter for 7 days and performed a CT scan.

Figure 3 Axial image showing no collection left after treatment

Its results showed a 60 % regression of the collection, an empty bladder and a regression of the dilatation of the upper tract. We then proceeded to put a percutaneous drainage in the form of a cysto catheter CH 12 ultrasound aimed. the percutaneous catheter was put in the remaining collection, we could evacuate 150 cc of franc pus and pyuria. The foley catheter kept flowing at 1200 cc per day and the percutaneous one gave between 50 and 100 cc per day. Urine culture resulted in a Escherichia coli to which we adapted our antibiotics.

The patient was allowed to leave admission after completely normalizing the biology with a catheter in place in the bladder flowing on 1200 cc per day and percutaneous being dry for 2 days. The patient continued an adapted antibiotic treatment with a normal PSA value. The patient had undergone a tran urethral prostate resection to evacuate the obstacle after we removed the percutaneous drain. Follow up CT scan didn't show any leakage. The patient was relieved from the complaints.

3. Discussion

It is well known that vesicocutaneous fistulae (VCFs) result in uncontrollable urine leakage from the bladder to the skin. It causes bothersome complaints and dramatically impairs patients' quality of life. Most of these fistulae are iatrogenic, but this condition can also be caused by extensive trauma with pelvic fractures, postoperative causes of radical pelvic surgery, after irradiation of pelvic malignancies, hip arthroplasty and large bladder calculus, and other different etiologic causes have been also reported. (1)

Untreated vesicocutaneous fistulae leads to continuous wetness and odor. As a result, when VCF is recognized, it should be treated properly. However, there is no consensus regarding the treatment. In the majority of cases vesicocutaneous fistulas close spontaneously when urine is well evacuated (1), some factors like the absence of abdominal wall abscess and diabetes type 2 can delay and aggravate the closing of the fistula. Therefore, catheterization of the bladder is needed to decrease volume of residual urine. Treating infection is also important (2)(3). Open surgery can be required and consists of the excision of all granulation tissue and mobilization of the bladder, subcutaneous tissue and skin is needed to close the dead space. (4)

Once the fistula tract is closed, a urodynamic study can be performed to monitor urine flow. Few fistulas reopen up after spontaneous closure, the recurrence rate is estimated at around 16 %.(5)

Conclusion

Vesicocutaneous fistulas are generally seen after bladder surgery with a bad urine flow after the procedure. Conservative treatment was shown to be efficient as long as the fistula has no connection to the peritoneum. Urodynamic tests are indicated to control good urine flow after treatment to avoid recurrence.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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