

Case	(746) Iatrogenic bladder rupture after laser photocoagulation.
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CASE PRESENTATION

A 85 year old man presents at the emergency department with a history of 10 days pelvic pain, continuous, after cystoscopy for laser photocoagulation (LP) and intravesical chemotherapy with mitomycin C. He refers frequency-dysuria syndrome and no fever. Four days ago he started on wide spectrum antibiotic for urinary tract infection, with no clinical improvement since then.

A contrast-enhanced abdominopelvic CT was made (with parenchymal phase and excretory phase), with the following findings: right bladder wall enhancing defect (parenchymal phase), liquid collections in the extraperitoneal perivesical spaces, and extravasation of contrast material through the bladder wall defect into the perivesical collections (excretory phase).

DISCUSSION

Simple extraperitoneal rupture of bladder was diagnosed, secondary to previous photocoagulation. Patient has been treated with antibiotics (sulfamethoxazole/trimethoprim) and endovesical transurethral catheter, and he is still, with regular outcome after 6 weeks on that treatment, so cystorrhaphy has been considered as eventual treatment.

Bladder rupture due to LP is extremely rare, and symptoms may resemble that of inferior urinary tract infection.

Iatrogenic bladder injuries are rare. Increasing age, recent chemotherapy or radiation, and smoking are the main risk factors for iatrogenic bladder injury, specially following colorectal surgery or transurethral bladder tumor resection.

When bladder injury is suspected, a cystography must be done (either with intravenous contrast material or through urethral catheter), in order to visualize the extravasation and its extent. In this case an abdominal CT was performed instead of a conventional cystography because clinical suspicion was a complicated inferior urinary tract infection, other than bladder rupture.

There are two types of extraperitoneal rupture. When extravasation is confined to the perivesical space in a molar-tooth shape it is a simple one, and can be treated conservatively with antibiotics and vesical catheter. On the other hand, in complex extraperitoneal ruptures contrast material extends beyond the perivesical space and may dissect into a variety of fascial planes and spaces. This type needs to be surgically repaired. Intraperitoneal bladder rupture always requires prompt surgery.

CONCLUSION

Iatrogenic bladder injuries are relatively uncommon, specially after laser photocoagulation, and can be diagnosed either with conventional cystography or CT (either contrast-enhanced or by means of transurethral contrast material administration). Extraperitoneal bladder injuries can be treated conservatively except if there is a complex component or delayed healing.



Contrast-enhanced abdominopelvic CT (nephrographic and excretory phase). There is a defect at the right wall of the bladder with collections of liquid around the bladder, distributed in a molar tooth shape (a), sign of extraperitoneal collections. At excretory phase, extravasation (*) of intravenous contrast material through the wall defect is establish (b-c), diagnostic sign of bladder extraperitoneal rupture with extravasation of urine and collections.

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