



## Urology

## PSEUDOANEURYSM-INDUCED VESICAL FISTULA PRESENTING AS INTRACTABLE HEMATURIA: A RARE AND INTERESTING CASE REPORT

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**(ABSTRACT)** **Background:** Pseudoaneurysms of the internal iliac artery are rare complications following pelvic surgery, often presenting with unusual symptoms like hematuria. This case highlights a pseudoaneurysm-induced vesical fistula, a rare occurrence following robot-assisted posterior pelvic exenteration. **Summary Of Case:** A 64-year-old female underwent robot-assisted posterior pelvic exenteration for locally advanced rectal cancer after neoadjuvant chemotherapy. On post-operative day 14, she presented with painless, intermittent hematuria, which was initially managed conservatively. After recurrence with hematuria and a drop in hemoglobin, a CT scan revealed a contrast leak from the posterior bladder wall. Diagnostic cystoscopy identified a pulsatile bleeder, and further angiography revealed a pseudoaneurysm of the internal iliac artery. Coil embolization was performed successfully, controlling the bleeding.

## KEYWORDS :

## CASE REPORT -

A 64 Year old Female Was operated for Robot assisted Posterior pelvic Exenteration for Locally advanced CA Rectum after NACT, Post-op course was uneventful and was discharged, Patient presented on post-op day - 14 with Painless total Intermittent Hematuria, Patient was vitally stable and Hemoglobin was static, which initially managed conservatively and patient discharged, again 3 days later, patient presented with total, painless hematuria with clots and her Hemoglobin was dropped after that she was given multiple blood transfusions, CT Abdomen+pelvis with contrast which showed focal contrast Leak from posterior bladder Wall [Image-1]. Patient was Taken For Diagnostic Cystoscopy which showed A Rent with Pulsatile Bleeder was found over Posterior Bladder Wall [Image-2], Supra Trigonal Region approx 3 cm above Left VUJ, cauterisation was attempted cystoscopically but was not successful, Patient was taken For Urgent Digital Subtraction Angiography and which further showed There was contrast Leak from Pseudo-Aneurysm of one of the posterior branch of internal iliac artery which was coiled and bleeding was controlled [Image-3a] [Image-3b].



IMAGE - 1



IMAGE - 2

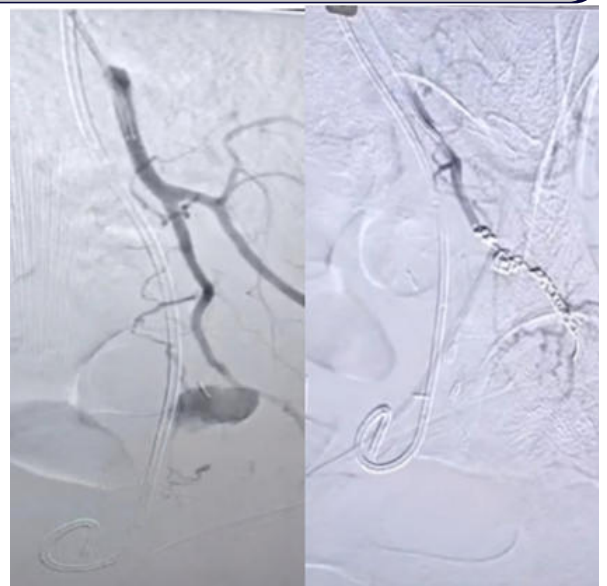


Image - 3a Showing active contrast leak

Image - 3b No contrast leak after coiling

## DISCUSSION -

Pseudoaneurysms are also known as false aneurysms or pulsatile haematomas. Most pseudoaneurysms are secondary to trauma or iatrogenic injury, including those after arterial catheterization. The arterial injury causes full-thickness arterial wall disruption with extravasation of blood into the adjacent tissue, resulting in haematoma formation[11]. The haematoma organises gradually and produces a fibrous layer which constitutes the wall of the pseudoaneurysm. Unlike a traumatic pseudoaneurysm of the thoracic aorta, which is often fatal without emergency surgery, the adjacent connective tissues of the abdomen, pelvis and extremities are able to form a tamponade to contain the haematoma. This phenomenon was seen in the present case.

Pseudo-Aneurysm of the iliac artery can rarely occur following extensive dissection. It is difficult to diagnose because of its rare

occurrence but also because of its unusual presentation and its anatomical position of the artery in the pelvis [4]. Therefore, a pseudo-aneurysm of the iliac artery is not considered in the differential diagnosis of macroscopic hematuria [5]. When a pseudo-aneurysm of the iliac artery increases in size, sign and symptom appear as the result of compression or rupture into nearby organs causing urological, GI, and neurological symptoms. Urological symptoms are hematuria, bladder outlet obstruction symptoms, and pain in flank [2, 5].

Rupture of an iliac pseudo-aneurysm into the bladder associated with hematuria is rare, and only few cases have been reported [2, 6]. It is important to note that hematuria secondary to a large pseudo-aneurysm of the internal iliac artery does not necessarily suggest an arterio-vesical or arterio-ureteral fistula.

The mortality rate due to rupture of an iliac artery aneurysm is over 50%, with survival rates following treatment of over 90% [8]. Open Surgical intervention is indicated in patients in condition fit for surgery and whose aneurysm is greater than 3 cm in diameter. Our patient was referred for urgent International Radiological intervention..

Two types of treatment are currently available: open surgical and endovascular aneurysm repair (EVAR). Surgical remains the gold standard for definitive management. Surgical techniques are aneurysmorrhaphy, exclusion and resection. Hence, surgery for pseudo-aneurysms of the internal iliac artery is technically difficult because of the depth of the operative field.

For patients unfit for open surgery/small <3cm pseudo-aneurysms, various minimally invasive techniques can be used. A combined embolization of the distal branches of the artery and/or stent-graft placement at the orifice of the internal iliac artery is routinely advocated as the primary treatment option. But, this method is associated with serious early and late complications like thrombosis of the graft, endoleaks, kinking, rupture or distal migration of the graft, or even aneurysmal rupture due to endotension [9]. Small coil or glue embolization of the distal branches of the internal iliac artery, packing of the sac with wires or coils of various sizes, and percutaneous CT-guided embolization of the sac can be preformed, but the long-term outcomes of these techniques have not been studied [10]. In our case, the patient was referred by Interventional Radiologist, who performed coil embolization, which offered patient minimally invasive and she had uneventful course thereafter.

### Follow up

We followed up patient till 12 months post-procedure, she had no complaints, Repeat USG KUB was also Normal.

### CONCLUSION -

This rare case of an internal iliac artery branch Pseudo-aneurysm causing vesical fistula with hematuria after posterior pelvic exenteration highlights the importance of early recognition and prompt minimally invasive management.

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