

A Rare Cause of Pain in the Perineum

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SUMMARY

Isolated internal iliac aneurysms are rare. We report a case of an uncommon presentation of perineal pain and tenesmus in a man caused by the pressure effects of the aneurysm. He had a successful endovascular exclusion and thrombosis of his aneurysm. On follow up of more than 3 years he remains free of all symptoms and no recurrence of the aneurysm.

KEY WORDS:

Internal iliac aneurysm, endovascular repair, perineal pain, tenesmus

INTRODUCTION

Isolated iliac artery aneurysm is an uncommon condition with an incidence of about 0.03% in a study on autopsy findings by Brunkwall.¹ An isolated internal iliac artery (IIAA) is even rarer. Most iliac aneurysms encountered in clinical practice occur concomitantly together with abdominal aortic aneurysms. Its rupture has a high mortality rate. The IIAAs are difficult surgically to treat because of its location deep in the pelvis and in getting the access to the distal branches (particularly when it ruptures) compounded by their close proximity to venous structures and the ureter resulting in high mortality and morbidity.

Most of the IIAAs are asymptomatic but patient may present with the symptoms of rupture, distal embolization, thrombosis, and symptoms of visceral involvement especially urological and lower gastro-intestinal including nerve compression.

We report a case of an isolated internal iliac artery aneurysm, with an unusual presentation of perineal pain and which was successfully managed by endovascular intervention.

CASE REPORT

A 69 yr. old man who presented with 8 months history of perineal pain, which was progressively worsening 2 weeks prior to admission. He described the pain as intermittent, more severe after sitting for a few hours and was aggravated by defecation and relieved by walking. This severely affected his job as it required many hours of sitting.

He was a chronic smoker and was diagnosed to have ischaemic heart disease and hyperlipidemia for the last 3

years. He had coronary angioplasty done in 2009. However he did not complain of intermittent claudication of the lower limbs.

Abdominal examination revealed a vague pulsating mass in the right iliac fossa region which was not tender. All lower limb pulses were palpable.

He had a colonoscopy done at a private clinic which was normal. Contrast computed tomographic (CT) scan of the abdomen (Fig 1) revealed a right internal iliac artery saccular aneurysm measuring 5.4 x 6.8 cm, with its neck diameter of 1.5 cm.

In view of his symptoms, size of aneurysm and also comorbidities, it was decided that he would benefit from an endovascular intervention to thrombose and exclude the aneurysm.

He was planned for coil embolisation of the aneurysmal sac to induce thrombosis followed by a stent graft of the right common iliac and external iliac artery to occlude the origin of the right internal iliac artery and exclude the aneurysm.

Via a contra-lateral femoral artery puncture, an angiogram was performed in the standard method (Fig.2) which confirmed the RIIA aneurysm. Using the same femoral access, the aneurysm sac was cannulated and 4 X 5mm wire coils (Cook Medical, Bloomington, USA) were inserted inducing partial thrombosis, followed by the deployment of 8 x 59 mm V 12® covered stent (Atrium Med Corp, USA) from the right common iliac artery origin extending to the right external iliac artery, covering the ostium of the internal iliac artery. The proximal stent was further expanded with 9F angioplasty balloon. Post - procedure angiography showed no evidence of endoleak and thrombosis of the aneurysm (Fig 3). The patient was discharged 3 days after the procedure.

Serial follow-up ultrasound showed steady reduction of the aneurysmal sac size.

The perianal pain progressively improved and was completely asymptomatic at 1 year. The latest follow-up at 3 years he was completely asymptomatic, however ultrasound revealed a persistent thrombosed aneurysm measuring approximately 3cm which had no flow but has remain static in size for the last few follow-up ultrasound scans.

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Fig. 1: Preoperative CT angiogram(CTA) showing right isolated internal iliac artery aneurysm(black arrow).



Fig. 2: Angiogram of the aorto-iliac segment confirming the right internal iliac artery aneurysm.(white arrow).



Fig. 3: Completion angiogram which showed complete thrombosis of the aneurysm after coil embolisation(white arrows) and placement of stent graft(black arrow) crossing the IIA ostium.

DISCUSSION

The vast majority of IIA aneurysms are atherosclerotic aneurysms occurring predominantly in elderly males. Occasionally they are pseudoaneurysms as a complication of previous vascular anastomosis, hysterectomy, drainage of ischiorectal abscesses, lumbar disk surgery, hip replacement, and pelvic fractures.²

IIA may remain asymptomatic and unrecognised until it ruptures. Early diagnosis is unusual unless it is diagnosed coincidentally by radiological imaging for other reasons. Richardson and Greenfield reported that up to 45% were

asymptomatic at diagnosis in their series of 72 aneurysms managed over 14 years.³ The IIAA may present as acute rupture with shock or symptoms caused by pressure effect on the adjacent organs such as ureter, bowel, nerves (obturator nerve and lumbosacral trunk) and iliac veins. Compression or deviation of the colon by the aneurysm may cause constipation, tenesmus and rectal pain. In our case, the patient had tenesmus and perineal pain the symptoms which is most likely due to both rectal and nerve compression.

Computerised tomography (CT) is currently well established imaging tool in the diagnosis of intra-abdominal aneurysms. CT with contrast demonstrates the aneurysm site, size and relationship to other organs, and may demonstrate retroperitoneal haemorrhage and displacement of other structures.

The treatment options available for the management IIAA include surgical excision, aneurysmorrhaphy and ligation (either the aneurysmal neck alone or the proximal and distal ligation of aneurysm)⁴ and endovascular approach. The endovascular exclusion and coiling has been reported to be a valid option of treatment with good results for IIAA both in the elective setting and emergency rupture though unlike open methods still leaves behind a remnant thrombosed aneurysm causing a mass effect though many are asymptomatic as in our patient.⁵

CONCLUSION

The case presented shows an uncommon presentation of the IIAA with perineal pain and tenesmus but managed successfully with endovascular treatment with minimal morbidity. However, like other endovascular procedures, regular and close follow-up is important. CT angiogram is a useful imaging modality in the diagnosis IIAA and planning for further management.

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