



False Aneurysm With Contained Rupture Of The Right Primitive Iliac Artery: A Case Operated On At The Festoc Center In Bamako

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Abstract

An iliac artery aneurysm is defined as a localized and permanent dilatation of the artery with a diameter greater than 1.5 cm. We report the case of a 32-year-old patient who had been admitted to the André Festoc center for one month of evolving lumbar pain, and in whom the morphological work-up revealed an aneurysm of the right common iliac artery. The aneurysm was cured by flattening and interposition of a PTFE prosthesis. Post-operative management was straightforward. Initially, Bechet's disease was suspected in view of the genital ulcerations, but the ophthalmological examination was normal. Syphilitic origin was therefore considered, as syphilis serology can be negative in the primary phase.

Introduction

Iliac artery aneurysm is defined as a localized and permanent dilatation of the artery with a diameter greater than 1.5 cm [1]. In contrast to association with abdominal aortic aneurysm, isolated iliac artery aneurysmal involvement is rare [2].

Observation

This is a 32-year-old patient with a history of appendectomy 7 years ago, referred to us for 1 month of intense back pain with a prickly sensation, vespero-nocturnal fever and chills.

He had been referred to several clinics for an infectious and morphological work-up, before being referred to us for surgery. The physical examination revealed a fairly good general condition, with a body mass index of 14.47. Vitals were normal except for slight hypotension.

Abdominal examination revealed pain in the right iliac fossa and right flank. The abdomen was soft and there was no umbilical cry. On the affected side, the femoral pulse was well perceived, but the popliteal, posterior tibial and pedal pulses were diminished. There was no trophic disorder. Sensitivity and motricity

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Figure 1. Ulcérations génitales

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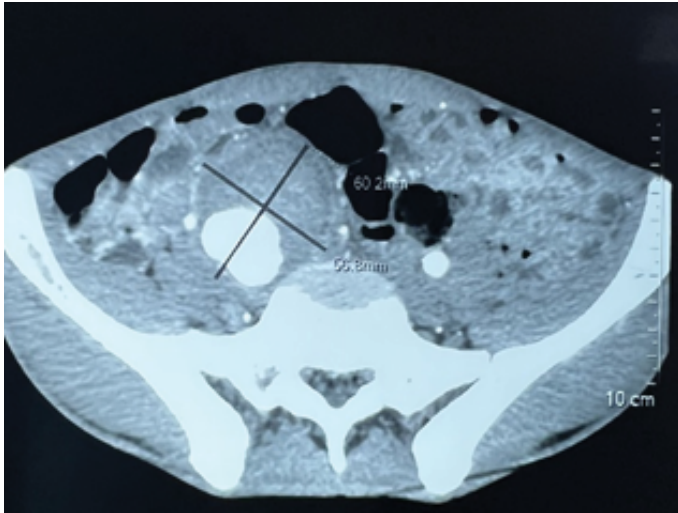


Figure 2. (angioscanner Coupe transversale): Volumineux anévrisme de l'artère iliaque primitive

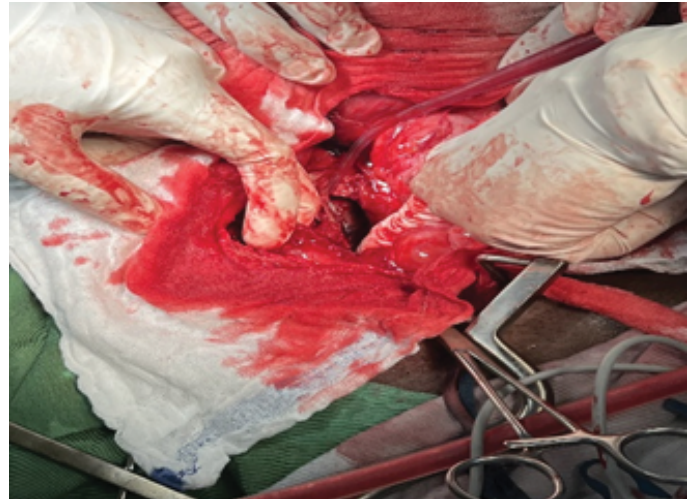


Figure 5. Vue supérieure : Mise à plat de l'anévrisme



Figure 3. (angioscanner Coupe frontale): anévrisme fusiforme de l'artère iliaque primitive



Figure 6. Vue supérieure : Interposition d'une prothèse de PTFE

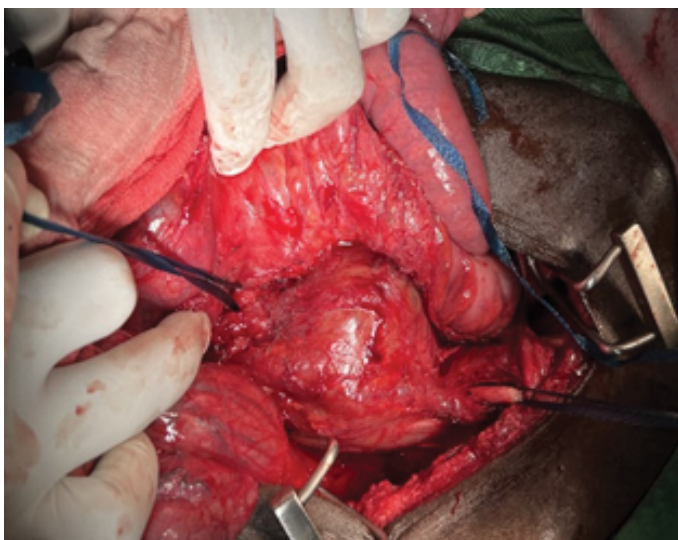


Figure 4. Vue supérieure : Dissection de l'anévrisme avec contrôle en amont et en aval

were preserved. There were two genital ulcerations (Figure 1). The angioscanner showed a voluminous fusiform aneurysm of the right primitive iliac artery (Figures 2 and 3), originating 35 mm from the ostium and extending to the iliac bifurcation. The superior neck measured 5.9 mm and the inferior 4.9 mm. The circulating lumen measured 56*32 mm in diameter. Recent peripheral hematoma in projection of the IDF exerting a posterolateral mass effect on the psoas. Retroviral serology, hepatitis B and C serology and Widal serology were negative, and functional renal failure was noted, with creatinemia at 129 umol/l. There was no biological inflammatory syndrome (wbc Leukocytes: 8100 u/l) or anemia (hgb 12.2g/dl). We then cured the aneurysm by flattening it (Figures 4 and 5) and interposing a PTFE prosthesis (Figure 6). Post-operative management was straightforward. Initially, Bechet's disease was suspected

in view of the genital ulcerations, but the ophthalmological examination was normal. Syphilitic origin was therefore retained, given that syphilis serology can be negative in the primary phase.

Discussion

The association of an iliac aneurysm with a sub-renal abdominal aortic aneurysm is fairly frequent [3]. However, isolated iliac aneurysms are rare; their prevalence varies between 0.03 and 0.1% depending on the series [1]. In the series by Krupski et al. [9], there were 4 aneurysms of the external iliac artery for every 31 aneurysms of the primary iliac artery.

Atherosclerosis is the leading cause of aneurysm, followed by post-surgical, post-traumatic and iatrogenic causes [5]. In our case, the cause may be syphilitic due to genital ulceration, since syphilis serology may be negative during the primary phase.

Among native iliac aneurysms, we note the subgroup caused by iliac aneurysmal degeneration posterior to the flattening of an abdominal aortic aneurysm; these metachronous iliac aneurysms account for 32% of all iliac aneurysms operated on [10]. The time to discovery of metachronous iliac aneurysms is 8.8 years after the initial surgery [11]. Other etiologies include congenital or iatrogenic forms, i.e. post-radiation, connective tissue diseases [Ehler-Danlos, Marfan], inflammatory diseases [Kawasaki, Takayasu, giant cell arteritis], pregnancy, hyperhomocysteinemia (salmonella, klebsiella, staphylococcus aureus, treponema pallidum, mycobacteria and candida) and idiopathic conditions [14-17]. Behçet's disease has also been incriminated as an etiology. The anatomical basis of this disease is a vasculitis affecting both veins and arteries [18], resulting in thrombosis and aneurysms, i.e. true vascular apthae. In Behçet's disease, vasculitis accounts for a large part of the pathological process. Vascular involvement is currently considered a critical sign of the clinical course of patients with Behçet's disease. In a study of 24 patients carried out by Hsu et al. in 2002 [6], 79% of patients presented with abdominal or lumbar pain, 89% with fever and hyperleukocytosis [6] [4]. However, the combination of these three symptoms was present in only 33% of cases, according to lhaya et al. in 2001 [5,7]. In the series by Jmal [4], the clinical symptomatology was pollakiuria in 1 case, right iliac fossa pain with cessation of feces and gas in 1 case, right iliac fossa pain without transit disorders in 1 case and vague abdominal pain in 1 case. The case presented by Jira [4] presented pain associated with a pelvic mass. Indeed, most iliac aneurysms manifest themselves as a mass effect, with compression of neighbouring structures (ureters, iliac veins, rectum, nerve roots, sciatic or femoral nerves). On clinical examination, iliac aneurysms, particularly internal iliac aneurysms, are difficult to palpate abdominally. However, Richardson and Greenfield [12] report a detection rate of 70% when vaginal or rectal examination is combined with anterior abdominal examination [12]. Less than half of all iliac aneurysms are asymptomatic [13].

Initially, in our case, the diagnosis of Behçet's disease was based on genital apthosis and vascular involvement, but the absence of uveitis on ophthalmological examination led us to rule out this diagnosis.

Treatment consisted of surgical removal of the aneurysm without additional corticosteroid therapy, as in the case of Jira [19]. The value of surgery is undeniable, given its low operative mortality (3.1 to 5%) [9] versus 30% for aneurysms operated on in the rupture phase.

The radical procedure is a direct approach with flattening of the iliac aneurysm. The disadvantage of this technique is a much higher operative risk, given the cumbersome nature of the deep dissection and the risk of damage to neighbouring structures such as the iliac veins and ureters [23]. Endovascular stentgraft exclusion is applicable to certain isolated iliac aneurysms [22], but is not indicated for ruptured iliac aneurysms. However, some authors support the insertion of stentgrafts to exclude a ruptured AAA in hemodynamically stable patients [24]. Radiological embolization has been reported for the elective exclusion of unruptured hypogastric aneurysms [20]. This embolization technique has no indication in the treatment of ruptured iliac aneurysms.

Conclusion

Isolated iliac aneurysms are a rare occurrence. For a long time, they remain asymptomatic and are discovered by chance. Conventional surgery to flatten the aneurysm and restore vascular continuity is the standard treatment for these aneurysms. Endovascular treatment is increasingly used. Exclusion of the aneurysm by a covered stent graft and embolization are the main techniques used. Surgical management of aneurysms is possible in developing countries.

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