Scholars Journal of Medical Case Reports **ISSN 2347-6559 (Online)**
Sch J Med Case Rep 2017; 5(3):163-164 **ISSN 2347-9507 (Print)**

(An International Publisher for Academic and Scientific Resources) DOI: 10.36347/sjmcr.2017.v05i03.010

The surgical repair of no-ruptured right renal artery aneurysm, a report of one case

Doumbia M, Dieng P.A, Sawadogo A, Dembélé B, Douglas B NK, Ba P.S, Sangaré Z, Ngounda S, Gaye M, Diatta S, Diop M.S, Sene E.B, Ciss A.G, Ndiaye A, Ndiaye M
Department of Thoracic and Cardiovascular Surgery, University Hospital of Fann, Dakar, Senegal

***Corresponding author**
Dr Modibo DOUMBIA
Email: modibodoumbia25@yahoo.fr

Abstract: We report the surgical management of one case of no-ruptured right renal aneurysm in a 25 year-old male patient admitted in the Department of Thoracic and Cardiovascular Surgery of the University Hospital in Dakar. He was complaining of low back pain associated with constipations without urinary disorders; no trauma was reported.
Keywords: Aneurysm - renal artery - surgery.

INTRODUCTION

The aneurysms of the renal artery are rare with a frequency varying between 0.03 and 1% Extra-parenchymal sites are common (85%) compared to intra-parenchymal sites. Regarding the shape, 70% of the aneurysms are saccular, 20% fusiform and 10% dissecting. [1] Most renal aneurysms are asymptomatic and their discovery is fortuitous. The Etiologies are dominated by atherosclerosis, fibrodysplasia, infections and trauma. Open surgery is not currently the commonest treatment since endovascular is the gold standard[2].

CASE REPORT

MD 25-year-old male admitted in emergency for low back pain with torsion associated with constipation in whom physical examination found hemodynamically stable patient: Blood pressure = 120/80 mmHg, pulsation = 95 /mn. On the right hypochondrium there was a beating and expansive mass. The peripheral pulse was well perceived. The lab tests found anemia (hemoglobin 10.3 g / dl) and inflammation syndrome (CRP = 73 mg / l). Renal function was normal (creatinine at 6.7 mg / min). Angioscanner showed an extra-renal aneurysm of the right renal artery 54X70 mm size [Figure 1]. Cardiac evaluation was normal. We performed median laparotomy that showed a voluminous no-ruptured aneurism of the middle third of the right unbroken renal artery then we took control of in and out arteries before rupturing the aneurysm. We repaired by end-to-end arterial anastomosis with 5/0 Prolène.

The follow-up was marked by ischemia of the superior pole of the right kidney as seen on the angioCT. Although creatinine control was normal. Then the clinical checks were satisfied. The patient was checked at M2 and the evolution was good.

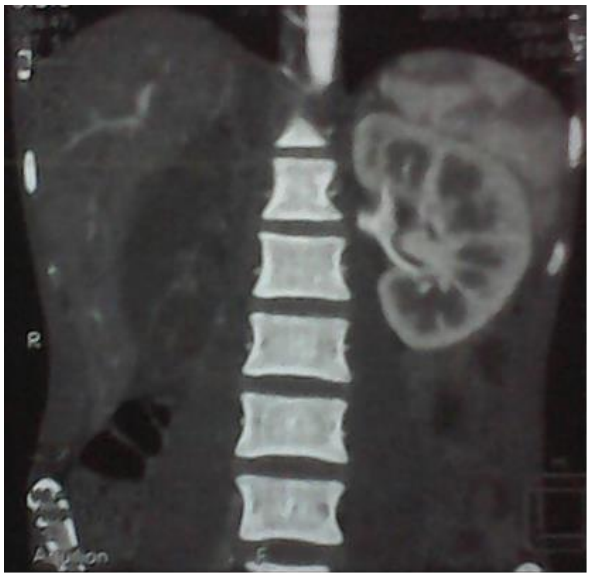

Fig-1: CT scan showing ischemic right kidney

DISCUSSION

Anatomically, the aneurysms are mainly localised on the arterial trunk and the branches of second order at the level of the bifurcations as in our patient. The classification of Poutasse distinguishes four types of renal arterial aneurysms: extra-parenchymatous sacciform, fusiform, dissecting and intra-parenchymatous [3,4].

Our patient was classified 2nd stage according to POUTASSE. Aneurysms are unique or sometimes multiple then associated with aneurysms of other viscera in a malformation context. [2]. No cause was found in our patient. In the largest series reported by Lacombe (123 patients), there are three etiologies. The most important is dysplasia representing 90% of cases.

Their morphology is mostly saccular with a fibrous collar and localizing near arterial divisions. Many authors point out that the general incidence rate of rupture is low [5,9] as it happened in our case.

The age of onset is in the majority of cases between 40 and 60 year-old in the literature. On the other hand our patient is relatively young suggesting fibromuscular dysplasia as etiology.

The clinical feature of our patient was poor. However, in the literature haematuria due to a rupture in the excretory cavities, or renovascular arterial hypertension were reported. The aneurysms of the renal artery are mostly located on the right side as in our patient [8,11]. They can be multiple in 1-30% of cases and bilateral in 10-25% of the cases. The angio-CT shows a saccular or fusiform contrast of the arterial time with a sensitivity and a specificity of 100%. The gold standard treatment remains endovascular but open surgery is still an alternative in Senegal that is lacking resources [1,10,12].

CONCLUSION

Aneurysm of renal artery is a rare disease in which surgery can improve both renal and patient prognosis.

REFERENCES

1. Njinou Ngninkeu B., Eucher P., Vandenbossche P., Lacrosse M., Van Cangh Pj., Lorge F. : Anévrisme rompu de l'artère rénale: une cause rare d'hématurie macroscopique. Prog. Urol., 2002 ; 12 : 454-458.
2. Rotkopf L., Helenon O., Chretien Y., Souissi M., Melki Ph., Moreau J.F. : Exploration radiologique d'une hématurie. J. Urol., 1993 ; 99 : 4 : 192-209. P. Rivière et coll., Progrès en Urologie (2004), 14, 62-64
3. Loukakos P, Laurian C. Renalartery aneurysm. Sang throm vaiss. 1999;11(10):780
4. Harrison Lh,Jr, Flye Mw,Seigler Hf, incindence of anatomical variants in renal vasculature in the presence normal renal function. Ann. Surg1978;jul;188(1):8-9
5. Hageman Jh, Smith Rf, Szilagyi E, Elliott Jp. Aneurysms of the renal artery : problems of prognosis and surgical management. Surgery 1978 ; 84 : 563-72.
6. Hubert Jp Jr, Pairolero Pc, Kazmier Fj. Solitary renal artery aneurysm. Surgery 1980 ; 88 : 557-65.
7. Tham G, Ekelund L, Herrlin K Et Al. Renal artery aneurysms : natural history and prognosis. Ann Surg 1983 ; 197 : 348-52.
8. Martin Rs, Meacham Pw, Ditesheim Ja, Mulherin Jl, Edwards Wh. Renal artery aneurysm : selective treatment for hypertension and prevention of rupture. J Vasc Surg 1989 ; 9 : 26-34.
9. Lumsden Ab, Salam Ta, Walton Kg. Renal artery aneurysm : a report of cases. Cardiovasc Surg 1996 ; 4 (2) : 185-9.
10. Henriksson C, Björkerud S, Nilson Ae, Pettersson S. Natural history of renal artery aneurysm elucidated by repeated angiography and pathoanatomical studies. Eur Urol 1985 ; 11 : 244-8.
11. Bulbul M, Farrow G. Renal artery aneurysms. Urology 1992 ; 40 : 124-6.
12. Seki T, Koyanagi T, Togashi M, Chikaraishi T, Tanda K, Kanagawa K. Experience with revascularizing renal artery aneurysms : is it feasible, safe and worth attempting ? J Urol 1997 ; 158 : 357-62.