Complete aortoiliac thrombosis in a patient during pretransplant cardiovascular evaluation

M. Mesquita, A. Demulder[1], A. Nazeri[2], P. Bergmann[3]

Clinics of Nephrology and Dialysis, [1]Laboratory of Hematology and Haemostasis, Departments of [2]Radiology and [3]Radio-Isotopes, University Hospital Brugmann, Free University of Brussels, Brussels, Belgium

Atherosclerosis is common in hemodialysis patients.[1] Added thrombophilic conditions such as primary antiphospholipid syndrome are additional risk factors for thrombosis.[2]

We present a case of a 49 years-old male on long-term oral anticoagulation because of positive antiphospholipid antibodies and clinical history of multiple arterial thrombotic events, who consulted a nephrologist for progressive renal failure.

Since 1985, he complained of progressive bilateral claudication of buttocks and thighs as well as impotence. He had several cardiovascular risk factors such as active smoking, high blood pressure, acute myocardial infarction in 1986, and later two episodes of cerebral thrombosis.

Examination revealed the ankle-brachial indexes at 0.7 with weak bilateral femoral, popliteal, and dorsal pedal arterial pulses. Laboratory analysis showed platelet count 250,000/mm^3, activated partial thromboplastin time (aPTT) 99 s (normal <40 s), positive lupus anticoagulant, and elevated anticardiolipin antibodies (aCL) (94 U GPL (normal <23).

Estimated GFR (MDRD formula) was 27 mL/min/L and proteinuria in the nephrotic range (7.2 g/24 h) without hematuria. Renal biopsy showed 90% sclerosed glomeruli.

Abdominal X-ray showed severe calcification of the aorta. At this time, the patient refused further vascular examination because he was pauci-symptomatic.

In August 2007, the renal function worsened and hemodialysis was necessary. In the month of October, he suddenly presented with acute chest pain and pulmonary edema, no femoral pulses. He needed a coronary artery bypass grafting.

For eventual kidney transplant, aortoiliac CT angiography exploring the entire vascular bed showed complete occlusion of aorta, its bifurcation and renal arteries; large lumbar collateral vessels had revascularized the area up to completely patent femoral arteries [Figure 1a-c], without any acute limb ischemia.

Treated by oral anticoagulation and hemodialysis thrice weekly, the patient showed no further symptomatic thrombotic complications and refused all procedures.

Treatment options of complete aortoiliac thrombosis range from direct aortoiliac reconstruction to new less invasive endovascular techniques such as stenting.[3] It

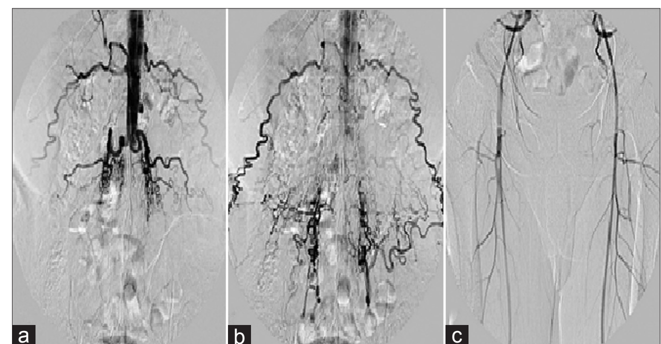

Figure 1: (a) Contrast injection in the abdominal aorta shows complete obliteration of the distal aorta and aortic bifurcation. The renal arteries are not seen, (b) Large collateral vessels of lumbar origin revascularize the iliac arteries, (c) The iliac and femoral arteries are patent thanks to the collateral vessels

Address for correspondence:
Dr. Mesquita Maria, Clinics of Nephrology and Dialysis, University Hospital Brugmann, A van Gehuchten Place 4, 1020 Brussels, Belgium.
E-mail: maria.mesquita@chu-brugmann.be

Access this article online

Quick Response Code:

Website: www.indianjnephrol.org

DOI: 10.4103/0971-4065.98773

is unknown whether these techniques are applicable to dialysis patients with multiple co-morbidities and if kidney transplantation would be successful after such procedures.

References

1. Rajagopalan S, Dellegrottaglie S, Furniss AL, Gillespie BW, Satayathum S, Lameire N, *et al.* Peripheral arterial disease in patients with end-stage renal disease: observations from the Dialysis Outcomes and Practice Patterns Study (DOPPS). Circulation 2006;114:1914-22.
2. Ortel TL. Thrombosis and the antiphospholipid syndrome. Hematology Am Soc Hematol Educ Program. 2005;462-8.
3. Krankenberg H, Scluter M, Schwencke C, Walter D, Pascotto A, Sandstede C, *et al.* Endovascular reconstruction of the aortic bifurcation in patients with Leriche syndrome. Clin Res Cardiol 2009;98:657-64.

How to cite this article: Mesquita M, Demulder A, Nazeri A, Bergmann P. Complete aortoiliac thrombosis in a patient during pretransplant cardiovascular evaluation. Indian J Nephrol 2012;22:226-7.

Source of Support: Nil, **Conflict of Interest:** None declared.