European **Rev**iew for **Med**ical and **Pharmacol**ogical **Sci**ences 2015; 19: 1119-1120

Letter to the Editor

About a case of unilateral perirenal retroperitoneal fibrosis without aorta involvement

Dear Editor,

The recent article "Unilateral perirenal fibrosis without aorta involement", by Lang et al[1], has awoken my attention given its substantially reliable, though extremely concise, content. Thorough imaging findings of right perirenal mass – CT isodensity to muscle, low intensity signal in T1/T2 weighted fat-saturation MRI images, 18F-FDG high uptake in PET – as well as pathology of US-guided biopsy specimen – spindle cells as vimentin positive fibroblasts and α-smooth muscle actin positive myofibroblasts together with plenty of inflammatory cells – led to a preoperative evidence for a right perirenal inflammatory myofibroblastic tumor. The extended radical right nephrectomy-related pathology showed, instead, a fibro-inflammatory mass – made up of fibrous component (collagen-1 fibers with fibroblasts and myofibroblasts) and a plenty of infiltrating inflammatory lymphocytes, neutrophils and plasma cells – enveloping the right kidney (with fibrotic infiltration of renal cortex), adrenal gland and also affecting a part of inferior vena cava wall, what was consistent with the diagnosis of the *idiopathic* retroperitoneal fibrosis (*i*RPF).

Given such narrow space-confined fibroinflammatory mass, it is likely that, before making the diagnosis of *i*RPF, the Authors might have reliably assessed the exclusion of a possible secondary RPF (sRPF), due to different aetiologic factors such as traumatic events, repeated vascular wall tiny leak-due microbleeding-haemorrhage, infections, malignancies, external beam radiation therapy (EBRT), leaving out obviously, in this occasion, the occurrence of drug-induced sRPFs – as from the use, some time ago, of lisergic acid derivatives, responsible for serotonin increase-mediated myofibroblast growth with following collagen matrix overproduction[2], to administration, today, of some bio-agents such as either anti-TNFα monoclonal antibodies or TNFα blockers[3] – given that the drug-promoted fibrogenetic process is usually retroperitoneal space-extensive .

As far as a myofibroblastic tumor (in the ancient times, improperly named "inflammatory tumor"), its identification is achieved by pathological evidence of both marked myofibroblast proliferation – that lead to the collagen overproduction-related fibrosis – and inflammatory areas, what may make clearly understandable the preoperative reference to such malignancy, particularly on the basis of high PET-found 18F-FDG uptake.

Considering that the *i*RPF may be placed in the field of systemic autoimmune disorders, a linked laboratory check battery could be carried out, including an assay of autoimmune disease-related antibodies, such as ANA (anti-nuclear antibodies) and ASMA (anti-smooth muscle antibodies) besides rheumatoid factor and both IgG and IgG4 serum levels. In this regard, the *i*RPF may be differentiated from the IgG4-related sclerosing disease (IgG4-RSD) because the pathologic microscopic findings show, in case of IgG4-RSD, a ratio IgG4 bearing plasma cells/total IgG bearing plasma cells beyond 30-50%[4,5].

Regarding the therapeutic measures, it's quite suitable, in such occasion, the surgical care (extended radical right nephrectomy), given the large fibroinflammatory involvement of kidney cortex and renal hilum with fibrous stenosis of renal artery, whereas for other forms of RPF, implying a more broad compression of retroperitoneal structures (particularly ureters with obstructive uropathy) and other systemic manifestations, it's necessary to resort to medical care including corticosteroids and/or immunosuppressants (such as azathioprine, mycophenolate mofetil, methotrexate, etc), at times tamoxifen with consequent TGFβ modulation-mediated fibroblast growth down-regulation, until, today, novel biotherapies among which the anti-TNFα monoclonal antibodies (infliximab, rituximab) and foreseeable use – as it already occurs for other autoimmune diseases – of phosphodiesterase-4 blockers to increase antinflammatory cAMP levels. For medical care refractory RPFs, surgical management mainly consists of open or laparoscopic ureterolysis, with lateral/intra-peritoneal ureter transposition or omental/seprafilm® wrapping[5-10].

When all is said and done, the Authors[1] have carefully performed what's just feasible in the case occurred to their attention, though taking into consideration other recent literature reports[11-13].

Corresponding Author: Contardo Alberti, MD; e-mail: eneide94@gmail.com

Conflict of Interest

The Author declares that there are no conflicts of interest.

References

1) Lang JT, Kang N, Zhang JH, Xing NZ. Unilateral perirenal fibrosis without aorta involvement. Eur Rev Med Pharmacol Sci 2015; 19: 732-735.
2) Alberti C. Aetiopathogenesis and current diagnostic approaches on the retroperitoneal fibrosis. Riv Radiol 1979; 19: 169-178.
3) Couderc M, Mathieu S, Dubost J, Soubrier M. Retroperitoneal fibrosis during etarnercept therapy in rheumatoid arthritis. J Rheumatol 2013; 40: 1931-1933.
4) Stone JH, Zen Y, Deshpande V. IgG4-related disease. N Engl J Med 2012; 366: 539-551.
5) Kukuk S, Kretshmer A, Bruck H, Roth S, Brant A. Retroperitoneal fibrosis:development of marker profile for diagnosis and therapy monitoring. Urologe A 2015; 54: 52-61.
6) Clark CP, Vanderpool D, Preskitt J. The response of retroperitoneal fibrosis to tamoxifen. Surgery 1991; 109: 502-506.
7) Alberti C. The rationale of tamoxifen in the management of retroperitoneal fibrosis and Peyronie disease. A review. Acta Urol Ital 1996; 10: 7-11.
8) van Bommel EF, Hendriksz TR, Huiskes AW, Zeegers GM. Tamoxifen therapy for nonmalignant retroperitoneal fibrosis. Ann Intern Med 2006; 144: 101-106.
9) Gaertner S, Cordeau EM, Mirea C, Stephan D. Retroperitoneal fibrosis. Presse Med 2014; 43: 1021-1023.
10) Alberti C. Revisiting the retroperitoneal fibroses:are there any news about aetiopathogenesis and diagnostic approaches? Eur Rev Med Pharmacol Sci 2012; 16: 1078-1094.
11) Mishra K, Zangar H, Taplin S, Ramanathan R, Stein RJ. Idiopathic retroperitoneal fibrosis. J Urol 2015; feb 3 (Epub ahead of print).
12) Zhou HJ, Van Y, Zhou B, Lan TF, Wang XY, Li CS. Retroperitoneal fibrosis: a retrospective clinical data analysis of 30 patients in a 10- year period. Chin Med J 2015; 128: 804-810.
13) Brandt AS, Kukuk S, Dreger NM, Muller E, Roth S. Therapy of retroperitoneal fibrosis: functional therapeutic outcome. Urologe A 2015; 54: 62-69.

C. Alberti
L.D. of Surgical Semeiotics