Reviewer’s report

Title: Successful treatment of highly advanced immunoglobulin G4-related kidney disease presenting renal mass-like regions with end-stage kidney failure: a case study

Version: 0 Date: 03 Nov 2015

Reviewer: Mitsuhiro Kawano

Reviewer’s report:

This case report describes a patient with end-stage kidney failure and atypical radiological findings.

1. Although the authors assert that high intensity lesions on T2-weighted MR imaging are lesions of IgG4-related kidney disease, this is hardly acceptable because renal function is disproportionately low in comparison with the distribution of restricted high intensity lesions on T2-weighted MR imaging in this case. Rather diffuse low intensity lesions seem to be lesions. Previous reports also have shown that affected lesions in IgG4-related tubulointerstitial nephritis are depicted as hypointense areas on T2-weighted images (Kim B et al. Eur J Radiol 2014;83:1057-62; Inoue D et al. book "IgG4-related disease" Tokyo: Springer Japan; 2014. pp. 99-105). Moreover, the authors noted the follow-up imaging findings to show bilateral global kidney atrophy. To clarify the extent of lesions and to confirm whether high intensity lesions on T2-weighted MR imaging are IgG4-RD lesions or not in this case, a comparison of MRI findings (or CT findings) before and after corticosteroid therapy is recommended.

2. In the abstract, the authors state that the renal prognosis of IgG4-related kidney disease is good because of a slow progression of kidney failure. However, Tsubata et al (Tsubata K et al. Intern Med. 2010;49(15):1593-8) analyzed 16 reported cases and found that the time course of renal function was divided into two types, i.e., acute cases and chronic cases and renal failure progressed rapidly in a few months in a group of acute cases. Therefore, the description "a slow progression of kidney failure" is incorrect.

3. The description "IgG4-positive lymphocyte infiltrate" in line 4 page 7 is incorrect. Please change the description to "IgG4-positive plasma cell infiltrate".

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Unable to assess

Does the work include the necessary controls?
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No
Are the conclusions drawn adequately supported by the data shown?
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No

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