Tubulointerstitial nephritis (TIN) is a renal manifestation of rare IgG4-related systemic diseases (IgG4-RSD) characterized by IgG4+ plasma cells infiltration and storiform fibrosis of target organs [1]. Corticosteroid sensitivity is one of the diagnostic criteria but treatment of corticosteroid-resistant and -dependent forms of IgG4-RSD is not well defined.

We acknowledge Kamisawa et al. [2] for the outstanding review on IgG4-related disease (IgG4-RD). However, we are concerned about the effective monitoring of rituximab IgG4-related kidney involvement. Rituximab is a promising therapy for the corticosteroid dependent form of IgG4-RD. Recently proposed monitoring of rituximab treatment based on circulating plasmablasts level needs further investigation [3]. Therefore, we would like to share our experience with diffusion-weighted (DW)-MRI in the radiological assessment of IgG4-tubulointerstitial nephritis (TIN) [4], an aspect which is not included in this review. In the case report of IgG4-RD (pancreatitis, cholangitis and TIN) we published earlier [3], rituximab was given (2×376 mg/m²/15 days) because of the corticosteroid dependency and persistence of bilateral focal renal lesions detected only by DW-MRI used for the follow-up of chronic pancreatitis. Before the first injection, positron emission tomography (PET) showed metabolic hyperactivity in the axillary lymph nodes and abdominal aortic wall but not in the kidneys. After 4 months of rituximab, the patient became asymptomatic, abdominal pain disappeared (pancreatic and liver tests normalized and metabolic hyperactivity at extrarenal lesions described by PET decreased). Additionally, a dramatic regression of renal lesions was documented by DW-MRI: the apparent diffusion coefficient had almost doubled and the volume of renal lesions was reduced by 50%, which had not been observed with other treatments. Although our data are limited, we would like to promote the use of DW-MRI as a promising tool for two reasons: 1) earlier diagnosis of kidney involvement in IgG4-RD [3] and 2) more accurate monitoring of rituximab therapy.

References
