Proposal of podocytic infolding glomerulopathy as a new disease entity

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In recent case presentations at conferences in Japan and in personal consultations, we had begun to recognize a rare and peculiar glomerulopathy, in which microspheres and microtubular structures are shown in the glomerular basement membrane (GBM) in association with infolding of cytoplasmic processes of podocytes into the GBM. This rare and peculiar glomerulopathy has not yet been included in the World Health Organization's classification of glomerular diseases, and only a few case reports have been published in the literature. We had no idea whether this lesion indicated a new disease entity or a transient morphological finding of a well-known disease. It was necessary to discern a clearer clinical and pathological profile and an effective treatment. However, it was difficult to accumulate cases at a single institution, because this glomerulopathy is extremely rare. Therefore, the Japanese Society of Nephrology has established a research working group and has collected cases from all over Japan in an attempt to understand the complete spectrum of this glomerulopathy.

The first meeting of the research working group was held on 30 July 2006, and members of the group brought together cases with the aim of creating a concept of this glomerulopathy as well as a diagnostic criterion, which was

needed to collect the cases. A preliminary report was published in Japanese in the official *Journal of Japanese Society of Nephrology* (Jpn J Nephrol 49:61–68, 2007), in which the working group hypothesized that the microstructures in the GBM may be derived from the podocyte. They proposed the name “podocytic infolding glomerulopathy.” On the basis of this publication, Podocytic Infolding Glomerulopathy Consensus Conferences were held as part of the program of the 50th Annual Meeting of the Japanese Society of Nephrology on 26 May 2007, and of the 37th Western Regional Meeting of the Japanese Society of Nephrology on 19 October 2007. In those forums, this glomerulopathy was publicized nationwide in Japan and there was a call for participants to present relevant cases. As a result, 25 cases were collected from 17 institutions around the country.

This special issue comprises an editorial article, 3 original articles, and 15 case reports that were presented in those meetings. T. Sakai has written the general remarks on the pathological significance of the cytoplasmic microstructures within the GBM, and K. Joh et al. have reviewed the 25 collected cases clinicopathologically, suggesting pathological findings of podocytic infolding as the common basis of all cases. In the article and the accompanying table, a digital object identifier (DOI) is shown for each case, making it easy to cross-reference case numbers and case reports. Y. Fujigaki et al. investigated continuity between cytoplasmic processes of the podocyte and microstructures in the GBM. Y. Masuda et al. devoted special attention to the differentiation of the glomerulopathy from a variant of primary membranous glomerulopathy. Because we suspect that microspheres and microtubular structures can be derived from primary podocytic infolding into the GBM, in this special issue we propose podocytic infolding glomerulopathy as a new morphological disease entity, even

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though an etiology and a generating mechanism are still unknown.

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