

## Electron Microscopy as a Valuable Diagnostic Tool for Uncommon Kidney Diseases: Illustrative Examples

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### Abstract

Transmission electron microscopy (TEM) is an invaluable diagnostic tool for the evaluation of medical renal diseases as it provides ultrastructural details beyond the resolution of light and immunofluorescence microscopy. In most instances, TEM gives corroborative information to support the impression made on light microscopy and immunofluorescence. However, there are certain conditions in which TEM is crucial for rendering the diagnosis. Here, we illustrate this concept using 3 cases, all of which are rare or uncommon. They are collagenofibrotic, cryofibrinogenic and podocyte infolding glomerulopathies. The diagnosis of collagenofibrotic glomerulopathy was only clinched in a repeat biopsy when ultrastructural study became available. In the case of cryofibrinogenic disease, immunogold labelling was a useful adjunct in confirming the presence of cryofibrinogen. Podocyte infolding glomerulopathy was proposed as a disease entity in 2008, and in our case the only significant pathology accounting for subnephrotic proteinuria.