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What's new in the treatment of chronic antibody mediated rejection?

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Circulating alloantibodies are found in a substantial number of renal allograft recipients, and the presence of these alloantibodies is significantly correlated with the development of allograft injury and later graft loss. In renal allograft tissue, chronic injury is represented microscopically as transplant glomerulopathy and diffuse C4d deposition in peritubular capillaries (PTCs); in this regard, it was included as new disease entity named chronic antibody-mediated rejection (CAMR) in the update of the Banff 05 classification. Usually the prognosis of CAMR is poor and conventional immunosuppressants mainly targeting T cell-mediated immunity cannot prevent or reverse it. Therefore, some researchers have suggested that therapies directed at the humoral response may be required for the treatment of CAMR. Recently, some reports have suggested that the combined use of rituximab (RTX) and intravenous immunoglobulin (IVIg) therapy may be useful for the treatment of CAMR. Our center's previous study also showed that RTX and IVIg combination therapy was effective in delaying the progression of CAMR. We used rituximab and IVIg combination therapy in 18 biopsy proven cAMR patients. After treatment, decline rate of eGFR was significantly slowed down. However, this effect is limited in patients with heavy proteinuria and it had dissipated in all patients by 1 year post-treatment. Recently, new drugs targeting humoral immune system such as bortezomib and eculizumab, has been attempted in treatment of cAMR, but they still lack definitive data in terms of successful treatment of CAMR. It is expected that those therapies will compensate the limitation of previously used anti-humoral therapies in CAMR.

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