

Cyclophosphamide/methylprednisolone/prednisone

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No improvement: case report

A 10-year-old girl exhibited no improvement in mesangial-proliferative glomerulonephritis during treatment with methylprednisolone, prednisone and methylprednisolone.

The girl was diagnosed with Henoch–Schönlein purpura in February 2020. Four weeks later, she presented with nephrotic range proteinuria and gross haematuria. Based on examinations, she was diagnosed with diffuse and segmental mesangial-proliferative glomerulonephritis. She received 2 courses of IV methylprednisolone 15 mg/kg/day for 3 consecutive days and oral prednisone 1 mg/kg on alternate days. However, she had new evidence of gross haematuria, proteinuria, skin vasculitic lesions, mild kidney impairment with hypoalbuminaemia. No infectious diseases were noted. Seven weeks following the diagnosis of glomerulonephritis, her clinical condition worsened with persistent nephritic-nephrotic syndrome, severe weight gain and skin rash with purpuric lesions and erythema on feet and lower limbs. Her nasopharyngeal swab test was positive for SARS-CoV-2 infection. She was admitted in a hospital. Later, her urinary samples were tested negative for SARS-CoV-2 infection. Following the clearance of SARS-CoV-2 infection, she started receiving 3 daily pulse of methylprednisolone and oral cyclophosphamide 2 mg/kg/day for 10 weeks along with the oral prednisone therapy. Despite the treatment, she had no improvement. Kidney biopsy revealed cytoplasmatic blebs and virus-like particles in tubular cells. RTPCR test of kidney tissue was negative for SARS-CoV-2 infection. She had persistence of severe proteinuria. Two months later, a kidney biopsy revealed worsened active lesions with the appearance of crescents and chronic features including interstitial fibrosis, fibrocellular crescents and diffuse segmental glomerular sclerosis. Virus-like particles were not observed.

The woman, started receiving mycophenolate mofetil and unspecified ACE-inhibitors. At a follow-up, she had normal kidney function and low proteinuria.

Serafinelli J, et al. Kidney involvement and histological findings in two pediatric COVID-19 patients. *Pediatric Nephrology* 36: 3789-3793, No. 11, Nov 2021. Available from: [URL: https://link.springer.de/link/service/journals/00467/index.htm](https://link.springer.de/link/service/journals/00467/index.htm) 803646040