

Cutaneous Purpura Triggered by Opportunistic Klebsiella Pneumonia Infection Associated with Methylprednisolone Pulse Therapy in a Patient with Immunoglobulin A Nephropathy

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Introduction

Immunoglobulin A nephropathy (IgAN) and immunoglobulin A vasculitis (IgAV) have been reported to be related diseases, but the relationship is not fully defined. Cutaneous purpura is the mandatory criterion for the diagnosis of IgAV.

Methods

We report the first case of IgAV triggered by opportunistic Klebsiella pneumonia infection associated with methylprednisolone pulse therapy, which was intended to be the treatment of IgAN.

Results

A 26-year-old female with hypertension without treatment for 5 years was brought to our ER due to progressive dyspnea for 1 month. There was oliguria, acute kidney injury, and pulmonary edema. There was an elevated creatinine level at 8.53 mg/dL. Urgent hemodialysis was done, and the pulmonary edema was relieved. On the ultrasound, both kidney sizes and cortical thicknesses were decreased. The kidney biopsy showed IgAN with 12% (2 cellular crescents in 16 sampled glomeruli) of crescents (M1E0S1T1-C1). After receiving double filtration plasmapheresis and methylprednisolone pulse therapy, she was complicated with a urinary tract infection with Klebsiella pneumonia. After one week, there were cutaneous purpura over her back and extremities. IgAV triggered by the opportunistic Klebsiella pneumonia infection was impressed. Although she remained oliguria and dialysis-dependent, the skin lesions subsided after the urinary tract infection was successfully treated with antibiotics.



Conclusions

To our knowledge, this is the first case of IgAV triggered by opportunistic Klebsiella pneumonia infection associated with immunosuppressive methylprednisolone pulse therapy, which was intended to be the treatment of IgAN. Clinicians need to decide on our treatment after a comprehensive discussion.