IgA Vasculitis Associated with COVID-19 Infection Successfully Treated with Corticosteroid Regimen without Relapse

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Introduction: Immunoglobulin A (IgA) vasculitis is an autoimmune disease associated with bacterial and viral infections and characterized by palpable purpura, arthralgia, abdominal pain, and renal involvement. COVID-19 can trigger numerous autoimmune conditions, including IgA vasculitis.

Case: We report a 33-year-old male with COVID-19 infection two weeks before developing worsening palpable purpura for one week then severe abdominal pain, nausea, emesis, diarrhea, hematochezia, and arthralgia. Outpatient prednisone for two days improved his lesions. Examination revealed diffuse severe abdominal tenderness, extensive palpable purpura including legs, pelvis, and buttocks, and petechiae on the bilateral arms. Labs revealed mildly elevated ALT, leukocytosis from corticosteroids, D-dimer at 808 ng/mL, CRP at 1.6 mg/dL, and ESR at 22 mm/h. Lipase and CMP were otherwise unremarkable. ANA, ANCA, anti-chromatin IgG, anti-smith, and antinuclear ribonucleoprotein antibodies were negative. Total complement, C3, and C4 levels were normal. Urinalysis revealed glucosuria, proteinuria, and ketonuria; no RBCs or WBCs on microscopy. Positive COVID-19 PCR and IgG antibodies indicated recent infection. Mycoplasma pneumoniae IgM antibodies and stool studies were negative. Right thigh punch biopsy with direct immunofluorescence revealed granular IgA and C3 deposition plus homogeneous fibrinogen deposition within many superficial dermal vessel walls, consistent with IgA vasculitis. Patient received intravenous methylprednisolone 80 mg daily for three days, followed by oral prednisone 60 mg daily with significant improvement. Steroids were tapered and discontinued at six weeks without relapse.

Conclusion: This case demonstrates active COVID-19 infection precipitated biopsy-proven IgA vasculitis. Treatment with six weeks of tapered corticosteroids resolved symptoms and skin lesions without relapse.

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