Rupture of Microaneurysms in IgA Vasculitis

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Case Report

IgA vasculitis is a small-vessel vasculitis associated with IgA-dominant immune deposits in the skin, kidney, and gastrointestinal tract. In adults, gastrointestinal features, including bloody diarrhea and microaneurysms, occur in 50% of patients [1].

A 64-year-old female with a history of hypertension presented with abdominal pain, fever, and progressive rash for one week. Physical examination revealed diffuse abdominal tenderness and palpable purpura in bilateral lower extremities (Figure 1).

Figure 1: Diffuse abdominal tenderness and palpable purpura in bilateral lower extremities.

Hemoglobin level was 12.3 g/dl, BUN 36 mg/dl, and serum creatinine level was 2.3 mg/dl. Urinary sediment showed 30-49 erythrocytes per high-power field. Purpuric lesions in the descending duodenum were found in upper gastrointestinal endoscopy (Figure 2).

Both skin and duodenal biopsy revealed leukoclastic vasculitis with IgA deposition, and kidney biopsy revealed mesangial cell proliferation with IgA deposition, all of which consistent with IgA vasculitis. The patient died due to the rupture of visceral microaneurysms (Figure 3) although treated with arterial embolization as well as medical treatments with glucocorticoids pulse therapy combined with cyclophosphamide.

Figure 3: Rupture of visceral microaneurysms.

The pathogenesis of microaneurysms in IgA vasculitis is still unclear, but Ciccone MM et al. [2] reported that the complex inflammatory process in the disease contributes to develop atherosclerosis, which could damage the vascular endothelial cells [2].

References