

Azithromycin-Induced Leukocytoclastic Vasculitis

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Leukocytoclastic vasculitis is considered a type III hypersensitivity reaction, characterized by perivascular inflammation, secondary ischemic changes, and necrosis¹. The relationship between drugs and vasculitis has been reported many times². Macrolides are a group of antibacterial agents that are frequently used in childhood. Allergy to macrolides is extremely rare (0.4% to 3%)³. We treated a case of azithromycin induced leukocytoclastic vasculitis.

An 8-month-old boy was admitted with fever and an eruption on his skin. His history indicated that oral azithromycin therapy had been given for tonsillitis 3 days before. His mother observed cutaneous erythematous

lesions on the third day of therapy. Examination revealed widespread palpable purpuras on his legs, feet, arms, gluteal region, and face (Figure 1). Laboratory tests revealed that his hemogram was normal except for leukocytosis (white blood cell count was $19.3 \times 10^3/\text{mm}^3$). Stool test for occult blood was negative. Hepatitis markers and antinuclear antibody, anti-DNA, and antineutrophil cytoplasmic antibodies were negative. Urinalysis and serum IgA, IgG, IgM, IgE, complement C3, C4, and cryoglobulin



Figure 1. Purpuric rash on our patient's foot and leg.

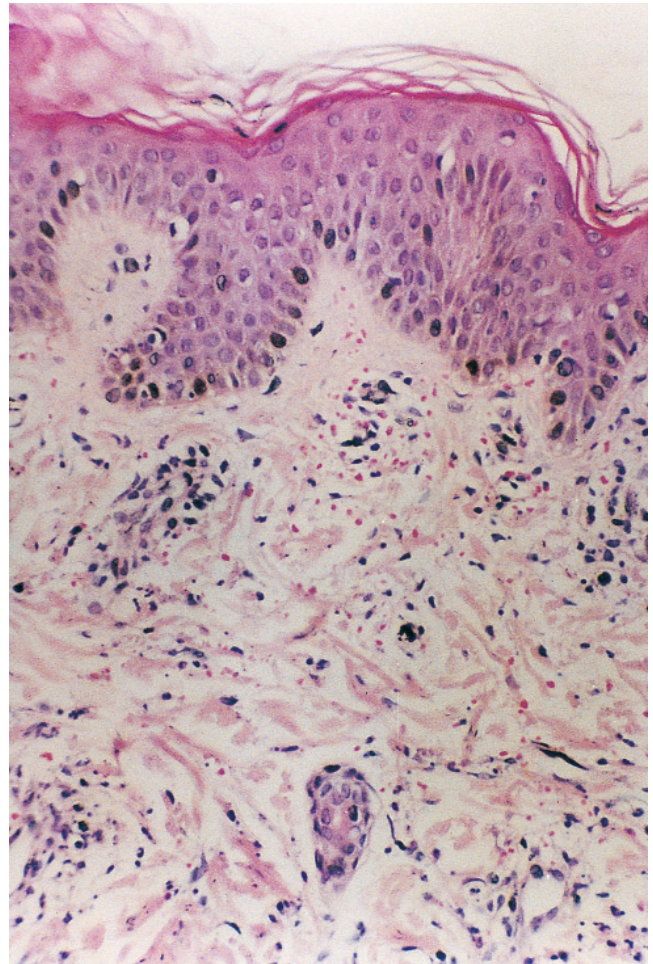


Figure 2. Vascular damage with perivascular neutrophilic and some eosinophilic infiltrates and nuclear debris. The infiltrate is also scattered between and within dermal collagen bundles and extravasation of erythrocytes (H&E; original magnification $\times 200$).

concentrations were normal. Blood, throat, and urine cultures were negative.

Skin biopsy revealed extravasation of erythrocytes and perivascular inflammation. Although perivascular inflammation consisted of intact neutrophils and eosinophils, some neutrophil fragments were also seen, which is characteristic for leukocytoclasia. The biopsy also showed minimal to no fibrin in vessel walls. These pathological findings were consistent with mild vasculitis (Figure 2). Immunofluorescence showed deposits of IgM and C3 within the small vessel walls.

He was diagnosed with azithromycin induced leukocytoclastic vasculitis (LCV). After discontinuation of azithromycin, body temperature returned to normal within 4 days, and purpura began to fade dramatically on the next day and disappeared within 3 days.

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are a group of antibacterial agents frequently used in childhood. Allergy to macrolides is extremely rare (0.4% to 3%)³. We considered that our patient's cutaneous findings were related to azithromycin therapy because his complaints started after therapy was begun and disappeared after drug discontinuation. A single case with azithromycin induced LCV has been reported⁴.

Our case showed that azithromycin, an antibiotic widely prescribed in childhood, may lead to LCV.

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