

The role of diet in the treatment of a patient with urticaria and urticarial vasculitis

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Urticarial vasculitis is characterized by an urticaria-like rash, usually associated with hypocomplementemia, high circulating immune complexes, and negative or low antinuclear antibody (ANA).^{1,2} The skin lesions are painful, nonpruritic nodules, usually non-blanching, and may be associated with arthralgias, arthritis, abdominal pain, fever, or uveitis. They persist for more than 24 hours and tend to be episodic. The characteristic features of vasculitis include endothelial swelling, hemorrhage, fibrin deposition, polymorphonuclear leukocyte infiltrate with leukocytoclasia, intimal proliferation with fibrosis and scarring of the media, and occasionally granulomatous changes in the postcapillary venules.² In contrast, true IgE-mediated urticaria is usually pruritic, transient, and migratory. The lesions are typically raised, erythematous, well circumscribed papules associated with an evanescent area of edema. Histologic characteristics include dermal edema and a perivascular infiltrate of lymphocytes, with the occasional eosinophil. Histologically, intermediate cases between urticaria and urticarial vasculitis have been identified and range from a dermal infiltrate of neutrophils without vasculitis to a neutrophilic venulitis without fibrinoid deposits, hemorrhage, or leukocytoclasia to a true leukocytoclastic vasculitis.^{2,3} This suggests that urticaria and urticarial vasculitis form a disease continuum.^{4,5} We present an unusual case of a patient with concomitant urticarial vasculitis and chronic idiopathic urticaria who had complete remission while on an elimination diet.

CASE REPORT

A 35-year-old woman was admitted with a 12-week history of urticaria without arthralgias, respiratory or other systemic symptoms. She responded only to prednisone, although as soon as the dose was lower than 20 mg daily, the



FIG. 1. The histologic picture consistent with urticarial vasculitis.

hives recurred. She was previously healthy, with no known allergies and on no medications. There were no changes in her work or home environment. Her family history was positive for vitiligo and systemic lupus erythematosus (SLE). She denied smoking or drug abuse. She had a cat and dog. Review of systems was negative. On physical examination there was no evidence of thyroid or cardiopulmonary disease. There was no hepatosplenomegaly, adenopathy, or arthritis. She had 1 cm in diameter raised, blanching, erythematous papules over her trunk, face, and legs consistent with urticaria. Over her anterior calves she had several 0.5 to 1.0 cm purpuric papulonodules that were firm and tender and arrayed in a reticulated pattern.

Laboratory investigations demonstrated a normal white

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and red blood cell count and differential. Erythrocyte sedimentation rate (ESR) was 37 mm/hr (0 to 20). Hepatitis screening was negative. Liver, thyroid, and renal function were normal. The ANA level was minimally positive. Rheumatoid factor and VDRL test results were negative. Complements and immune complexes were normal. Cryoglobulins were negative. Intradermal skin testing with inhalant allergens was negative. Skin biopsy of a lesion of urticaria showed a sparse superficial and deep perivascular and interstitial lymphocytic infiltrate, with neutrophils and eosinophils without fibrin or thrombi in vessels. Skin biopsy of a purpuric papulonodule showed a moderately dense superficial and deep perivascular and interstitial lymphocytic infiltrate with many neutrophils, nuclear dust, extravasated erythrocytes, and a small amount of fibrin within vessel walls (Fig. 1).

During the following months she was treated with maximal doses of hydroxyzine, doxepin, colchicine, azatadine maleate, cimetidine, and prednisone. An elimination diet that included lamb, rice, stewed peaches, and apricot nectar was started. Alcohol, caffeine, and sugar substitutes were avoided. Gradual discontinuation of the medications began, and one new food was added to her diet every 3 days. One and one half years later she is asymptomatic on her usual diet and no medications.

DISCUSSION

This patient represents a case of urticarial vasculitis and chronic urticaria that resolved as an elimination diet was instituted. She had skin lesions typical of both urticaria and urticarial vasculitis, with histologic changes intermediate between the two. Although she had a good clinical response to corticosteroids, attempts to taper resulted in breakthrough urticaria despite antihistaminics. This case illustrates the spectrum of disease between urticaria and urticarial vas-

culitis. Although the antigen was not identified in this case, it was presumed to be related to food because of the temporal relationship between the institution of the diet and disappearance of symptoms. In a recent report, a case of urticarial vasculitis was related to the ingestion of herbs.⁵ We have as yet not been able to identify a definite causal relationship with ingestants on re-institution of a regular diet.

Urticarial vasculitis and chronic urticaria may represent a spectrum of disease and may exist together as they appeared in this patient. It is possible that the same precipitating factors may be responsible for both conditions. Diet remains a controversial therapy in urticaria and has never been advocated in the treatment of vasculitis. It is difficult to assess the usefulness of diet without a controlled study. We realize that spontaneous remission can occur. However, in a patient who has been on high-dose corticosteroids for an extended time and has adverse effects of such therapy, diet may be an effective adjunct.

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