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A disease of the present: Scurvy in “well-nourished” patients

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To the Editor: Scurvy, vitamin C (ascorbic acid) deficiency, is linked historically to sailors and unbalanced diets. Despite current accessibility to foods containing ascorbic acid, we present two recent cases of scurvy in otherwise apparently “well fed” individuals.

A 30-year-old man was admitted for anemia (hemoglobin 7.9 g/dL), leg hematoma, and rash. The patient had been healthy, but exclusively ate fast food with almost no intake of fresh fruits or vegetables. He had poor dentition without gingival bleeding and multiple perifollicular papules on the legs with corkscrew hairs (Fig 1). A biopsy of one of the petechial lesions on the leg revealed histologic findings consistent with scurvy (Fig 2). The patient's serum vitamin C level was less than 0.12 mg/dL (normal 0.2–1.9 mg/dL). After the patient was prescribed 2000 mg of ascorbic acid daily, his eruption improved.

A 55-year-old woman with a history of hypothyroidism, hepatic hemangioma, and fatty liver presented with a new leg rash. She had small, nonpruritic, petechial perifollicular macules on bilateral lower extremities. Based on clinical findings and serum vitamin C level less than 0.12 mg/dL, scurvy was diagnosed. After several days of multivitamin supplementation, her eruption improved. Retrospectively, she reported eating only ½ cup or less of fruits and no vegetables daily and consuming 10 to 14 meals per week at common fast food restaurants. She drank several cans of diet soda 3 or more times per day, expressed a dislike for orange juice, and had been taking no multivitamins.

Fast food intake has dramatically increased since the 1970s.¹ Time constraints, convenience, and lifestyle have increased the contribution of fast food in the American diet,² accounting for nearly 50% of an average family's food budget.^{3,4} Fast food intake is associated with a higher intake of fried potato, hamburger, pizza, and soft drinks, and lower intake of fruits, vegetables, and milk.^{1,2}

While many fast food restaurants offer more healthful choices, patrons may not select these items. Despite availability of healthy fast food options in Australian restaurants, a small minority of Australians were purchasing them.⁵ A cultural change may be needed before Americans choose healthier substitutes over the traditional burger and fries. Even though scurvy had become rare in the developed world, a resurgence of scurvy may be another

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indication of the larger problem with the American diet, a diet with insufficient intake of fresh foods and with implications for obesity and diabetes.

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Fig 1.
Scurvy. Multiple perifollicular papules and petechiae with corkscrew hairs on the legs of Patient 1.

Fig 2. Scurvy. Routine hematoxylin-eosin stain at 10× showing a superficial perivascular and perifollicular lymphohistiocytic infiltrate (*black arrows*) with numerous perifollicular extravasated red blood cells. Follicular hyperkeratosis (*red arrowhead*) and multiple fragmented hair shafts are also noted (*orange triangle*).