A 15-MONTH-OLD boy had a history of unexplained bleeding from his gums for several weeks and fever for 2 days. He had been fed only cow’s milk and oatmeal since age 4 months. On physical examination he had almost no spontaneous movement. His legs were held in a “frog leg” position (Figure 1), were swollen along the long bones, and were tender to palpation. His skin was dry and pale. Hemorrhages of the gingiva were obvious as were 2 blood-filled cysts of the lower canine teeth (Figure 2). The tympanic membranes were hyperemic, and evidence of middle-ear fluid was present. Palpable prominence of the costochondral junctions of the chest wall was noted.

The results of laboratory examinations revealed a normal white blood cell count, a hemoglobin level of 76 g/L, and a platelet count of 334 × 10⁹/L. The serum calcium, phosphorous, copper, and alkaline phosphatase levels were normal. Thyroid stimulating hormone, triiodothyronine, and thyroxine levels were also normal. The serum level of vitamin D was normal, but vitamin C levels were low, 28 µmol/L (reference range, 45-108 µmol/L). Chest x-ray film showed a scorbutic rosary at the costochondral junctions with a “corner” sign noted in the proximal metaphysis of the humerus. Lower extremity radiographs demonstrated abnormalities (Figure 3).
Infantile Scurvy

Clinical Manifestations

Most cases of scurvy are seen between ages 6 and 24 months. Neonatal scurvy is rare, except in infants of mothers with extreme hypovitaminosis C.6,7 Breast milk contains sufficient amounts of vitamin C unless the mother’s diet is deficient in this vitamin.8 The first clinical manifestations of scurvy are often associated with acute febrile illnesses that seem to increase the need for vitamin C.8

The diagnosis of scurvy is based on a combination of clinical and radiographic findings. A dietary history compatible with insufficient intake of vitamin C should be present. Accurate laboratory measurement of vitamin C levels is difficult because of the instability of vitamin C.

Healing occurs rapidly with the oral administration of 100 to 200 mg/d of vitamin C. As healing occurs, the intake of vitamin C may be reduced to 50 mg/d until complete clinical and radiologic resolution has taken place.9

Differential Diagnosis, Diagnosis, and Treatment

Bleeding manifestations and bone pain may suggest acute leukemia. Bone pain and refusal to walk may lead to consideration of osteomyelitis, septic arthritis, and rheumatic disorders.

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6. Chow CL, Laberge C, Scrivener CR. Neonatal hypertyrosinemia and evidence for deficiency of ascorbic acid in arctic and subarctic peoples. CMAJ. 1975;113:624-626.

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