Kaposi Sarcoma in a Patient With Postpolio Syndrome

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Kaposi sarcoma (KS) is a low-grade vascular tumor that is rare among the general US population, with an incidence rate of less than 1 per 100,000.1 The tumor is more common among certain groups of individuals due to geographic differences in the prevalence of KS-associated herpesvirus (also referred to as human herpesvirus 8) as well as host immune factors.2 Kaposi sarcoma often is defined by the patient’s predisposing characteristics yielding the following distinct epidemiologic subtypes: (1) classic KS is a rare disease affecting older men of Mediterranean or African descent and among immunosuppressed patients; (2) Kaposi sarcoma is a radiosensitive vascular neoplasm, and radiation therapy can achieve local control.

A 77-year-old man with a distant history of paralytic poliomyelitis presented for an annual skin examination with concern for a new lesion on the right ankle. The patient had a history of PPS primarily affecting the right leg. Physical examination revealed residual weakness in an atrophic right lower extremity with a mottled appearance and mild pitting edema to the knee. Two red, dome-shaped, vascular papules were appreciated on the medial aspect of the right ankle (Figure 1), and a shave biopsy of the larger papule was performed. Microscopic examination of the biopsy specimen was consistent with KS (Figure 2). This patient had no history of human immunodeficiency virus or immunosuppressive therapy and was not of Mediterranean descent.

Because KS is a radiosensitive vascular neoplasm and radiation therapy (RT) alone can achieve local control,4 the patient was treated with 6 megaelectron-volt electron-beam radiation therapy (RT) alone can achieve local control.4 The patient was treated with 6 megaelectron-volt electron-beam radiation therapy (RT) alone can achieve local control.4 The patient was treated with 6 megaelectron-volt electron-beam radiation therapy (RT) alone can achieve local control.4 The patient was treated with 6 megaelectron-volt electron-beam radiation therapy (RT) alone can achieve local control.4 The patient was treated with 6 megaelectron-volt electron-beam radiation therapy (RT) alone can achieve local control.4

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He received 30 Gy in 10 fractions to the affected area of the medial ankle. The patient tolerated RT well. Three weeks after completing treatment, he was found to have mild lichenification on the right medial ankle with no clinical evidence of disease. Four months later, he presented with multiple additional vascular papules on the right third toe and in the interdigital web space (Figure 3). Shave biopsy of one of these lesions was consistent with KS. Contrast computed tomography of the chest, abdomen, and pelvis was performed, revealing no evidence of metastatic disease. The patient was treated with 30 Gy in 15 fractions using opposed lateral 6 megaelectron-volt photon fields to the entire right lower extremity below the knee to treat all of the skin affected by the PPS. His posttreatment course was complicated by edema in the affected leg that resolved after daily pneumatic compression. He had no evidence of residual or recurrent disease 6 months after completing RT (Figure 4).

Cutaneous KS is a human herpesvirus 8–positive tumor of endothelial origin typically seen in older men of Mediterranean or African descent and among immunosuppressed patients. Our patient did not have any classic risk factors for KS, but his disease did arise in the setting of a right lower extremity that was notably affected by PPS. Postpolio syndrome is characterized by
muscle atrophy due to denervation of the motor unit. Bruno et al found that such deficits in motor innervation could lead to impairments in venous outflow causing cutaneous venous congestion. Acroangiodermatitis clinically resembles KS but is a benign reactive vasoproliferative disorder and is well known to occur in the lower extremities as a sequela of chronic venous insufficiency. A case of bilateral lower extremity pseudo-KS was reported in a patient with notable PPS. A report of 2 patients describes KS arising in the setting of chronic venous insufficiency without any classic risk factors. Therefore, patients with PPS characterized by venous insufficiency may represent a population at increased risk for KS.

REFERENCES