CASE REPORT

Isolated Kaposi sarcoma of the finger pulp in an AIDS patient

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Summary A 63-year-old woman with long-standing AIDS and previous Kaposi sarcomas of the lower limb presented to our consultation complaining of a painful left ring finger with pulp enlargement. X-rays revealed an osteolytic lesion of the distal phalanx. We suspected an isolated osseous Kaposi sarcoma and at surgery we found a hemorrhagic lesion with bone extension into the phalanx. Bone involvement is rare in Kaposi sarcoma and even rarer in patients without a cutaneous location.

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Kaposi sarcoma is a malignant vascular tumor occurring in an immunodepressed subject, notably in cases of HIV infection. Its cutaneous and systemic manifestations are now well known. However, bone involvement, notably in the hand, is much rarer.

A 63-year-old woman presented in December 2009 in our department for a painful lesion of the left ring finger with contact hyperesthesia evolving over the past several weeks.

The patient’s history included hypercholesterolemia, drug-induced hepatitis and HIV infection known since 1996. Following her HIV infection, she had presented cutaneous lesions on her lower limbs and then on the upper limbs. At the time of her Kaposi sarcoma diagnosis in March 2006, her viral load was less than 50 copies/mL and her CD4 rate was 380/mL with well-observed triple antiretroviral therapy with Kivexa® and Sustiva®. A concomitant bronchoscopy revealed pharyngeal involvement, but the patient did not present digestive involvement or associated lymph node extension.

During the consultation in 2009, the clinical examination found moderate nail dystrophy associated with a purplish nodular lesion under the nail. Plain X-rays demonstrated an osteolytic lesion of the distal phalanx (Fig. 1) and MRI showed a T1-weighted hypodense tumor (Fig. 2) with enhancement after gadolinium injection. The patient’s viral load on Kivexa® and Sustiva® remained under control. The diagnosis of isolated cutaneous osseous Kaposi sarcoma of the finger pulp was suspected. After the multidisciplinary medical and surgical meeting, it was decided to proceed with isolated surgical resection of the digital lesion with no associated systemic treatment. In absence of symptoms, no systemic staging was done.

The surgical resection was performed via a lateral hockey stick approach. Exploration found a hemorrhagic lesion of the soft tissues with bony extension to the phalanx (Fig. 3). Monobloc resection was associated with bone curettage with...
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no associated filling. The anatomopathological specimen provided confirmation of the diagnosis of bony Kaposi syndrome. Recovery was uneventful.

**Discussion**

Kaposi sarcoma is a multifocal malignant vascular tumor composed of a proliferation of spindle-shaped mesenchymal cells and dilated capillaries induced by growth factors such as interleukin-6 (Aboulafia, 2001). It is related to human herpes virus type 8 (HHV8) infection. Bony extension is relatively rare and in the majority of cases manifests in the spinal cord. Bone involvement generally results from contiguous extension from an adjacent cutaneous or extraosseous lesion.

Kaposi sarcoma with bone involvement is very rare, affecting only 4.5% of patients (Ritz-Quillac et al., 1999). The isolated presence of a Kaposi sarcoma lesion on the hand is even rarer. Caponetti et al., 2007 reported only three cases of hand involvement in a series of 66 bone lesions demonstrated on X-rays. To our knowledge, a single case of an isolated phalangeal lesion has been described to date (Keith et al., 1986).

Kaposi sarcoma bone involvement is difficult to diagnose on plain X-rays. MRI is more sensitive, demonstrating an osteolytic intramedullary lesion with a T1-weighted hypointense signal, a T2-weighted hyperintense signal, and enhancement of the signal after gadolinium injection in the case reported herein. In absence of clinical signs of systemic diffusion, there was no indication for staging to search for pulmonary or digestive metastasis.

This patient presented a Kaposi sarcoma lesion with bone involvement and no systemic localization. The bone lesion was secondary to contiguity with a cutaneous lesion. The clinical history and imaging suggested the diagnosis. In this case, there was no isolated cutaneous lesion with bone extension, which would indicate medical treatment. Local treatments such as cryotherapy or radiotherapy are reserved for small, poorly infiltrated lesions with no associated bone extension, and systemic chemotherapy or immunomodulator treatments are adapted to diffuse pulmonary or digestive forms. Surgical excision of the lesion and bone curettage healed the lesion with no recurrence at 18 months. Previously described distal bone lesions in Kaposi sarcoma, notably on the foot, are generally small and do not require bone filling after curettage.

The main differential diagnoses for this location are glomus tumors, epidermoid cysts, and bacillary angiomatosis (Bartonella henselae infection). It is important for a hand surgeon not to misjudge this diagnosis and to know when it is suggested even in absence of associated systemic lesions.

**Disclosure of interest**

The authors declare that they have no conflicts of interest concerning this article.
Further reading


