estimated by the simultaneous evaluation of several clinical parameters such as size, location in the gut, invasion of the adjacent organ, mucosal invasion, degree of cellularity, cellular architecture, mitotic count, nuclear polymorphism, necrosis and proliferation rate.\(^2\)

Since within a tumor, there may be considerable heterogeneity with respect to those features that separate benign tumors from malignant ones, thorough sampling for microscopic evaluation is essential, for precise diagnosis. A minimum of one tissue section per centimeter of tumor diameter is required.

At laparotomy, the only absolute criterion of malignancy is the spread beyond the organ of origin at the time of diagnosis, but mucosal ulcer over the tumor is considered a sign of malignancy. Those tumors are locally confined at diagnosis and found incidentally during surgery generally behave in a benign fashion. However, resection of these tumors is necessary, since their behavior is unpredictable and they have to be pathologically examined. Radiation therapy and chemotherapy have been used to a lesser extent, mainly in a palliative setting. Neither modality has been shown to be particularly effective because these tumors seem to be resistant to chemoradiation.

In recurrent tumors, surgery should be reserved largely for symptom control, since disease specific survival seems to be determined by the biology and size of the primary tumor.

T 1571 (Glivec) a potent tyrosine kinase inhibitor which is also a potent inhibitor of C Kit has shown good tolerance and appreciable anti-tumor activity in the GIST.\(^3\) This drug has been used in doses of 400 to 4000 mg daily with good results.

Hurlimann et al\(^4\) observed smooth muscle differentiation in 30% of the cases, neural differentiation is 10%, dual smooth muscle and neural differentiation in 3% and no obvious differentiation in 40%. In tumors with neural differentiation, \textit{Vimentin is expressed in 95% of tumors}, Neuron specific enolase in 50 - 100 %, Synaptophysin in 100%, Neurofilament protein in 10%, S-100 in 20 - 60%, Vasointestinal peptide in 20 - 40% and CD 34 in 60%. Tumors with smooth muscle differentiation, do not express Neuron specific enolase, Synaptophysin, Chromogranin, Glial fibrillary acidic protein, or Protein gene product 9.5 but express lineage specific markers, like Muscle specific antigen (HHF - 35) in 68%, Smooth muscle actin (SMA) in 57% and Desmin upto 50%.

A type of GIST showing neural differentiation is the gastrointestinal autonomic nerve tumor (GANT), which are uncommon stromal tumors with morphological features resembling the cell processes of the enteric autonomic plexus that occasionally develops in the context of von Recklinghausen’s disease. GANTs are typically epithelial or spindle celled and usually of low histological grade.\(^5\) They typically express S-100, Neuron specific enolase, Vimentin and Synaptophysin and they are CD 34 negative, as in the present case. GANTs can be distinguished from other GISTs only on the basis of their unique ultrastructural features.

REFERENCES


Kaposi’s sarcoma in a follow-up patient of malignant schwannoma after seroconversion

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INTRODUCTION

Kaposi's sarcoma was first described in 1872 by Moritz Kaposi as a disease seen in elderly men of Mediterranean or Jewish descent. Four different clinical and aetiological entities have been recognised later: 1) Classical Kaposi's sarcoma 2) African non-HIV variety 3) Kaposi's sarcoma occurring in immunosuppressed patients and 4) Kaposi's sarcoma in AIDS. In 1981, initial reports described it in homosexual men with AIDS. But recent publications have reported its incidence in heterosexual males also. Now HIV is a fast-spreading epidemic in India. In India there are 39.7 million HIV cases as reported by the UNAIDS global HIV / AIDS Report 2002. Currently, the infection rate is estimated to be 0.7 per cent in the adult population (between 15–49 years of age).

Kaposi's sarcoma was one of the first conditions recognised as an opportunistic sequel of the HIV infection and remains the most common AIDS-associated neoplasm. Although all forms of Kaposi's sarcoma are histologically similar there is a wide range in the distribution and clinical manifestations. The disease usually presents initially as violaceous skin lesions, but oral, visceral or nodal involvement may precede cutaneous involvement. Biopsy for definitive diagnosis is recommended to distinguish Kaposi's sarcoma from other pigmented skin conditions.

CASE REPORT

In July 2002 a 35-year-old heterosexual right-handed male, presented with asymptomatic nodulo-ulcerative lesions on the right upper limb since one year.

He had past history of malignant schwannoma arising from a digital nerve removed twice from the right palm. In October 1997 an ulcerated lesion was removed from the right palm, which was reported as malignant Schwannoma. He presented with recurrent lesion at the same site in December 1998. Recurrent malignant schwannoma was considered as a diagnosis. A wide local excision with sural nerve grafting for digital nerve was done. The wide defect in the palm was covered with radial artery island flap. Histopathology of the specimen was reported as malignant schwannoma with tumour-free margins. It healed completely with reasonable recovery of sensations and he got back to work.

On examination there were multiple nodulo-ulcerative lesions ranging from subcutaneous nodules to proliferating ulcers. The ulcers were of varying sizes, the biggest measuring 2 cm X 3 cm on the anterior aspect of the forearm 8 cm below the cubital fossa (this was the first lesion to appear). All the ulcers were non-tender with indurated base and raised edges and the floor was covered with brown to black slough. There were multiple, non-tender subcutaneous nodules measuring from 0.5 cm — 1 cm in size, confined to the right upper limb only. There was a firm, non-tender mobile lymph node in the right axilla measuring 2 cm X 2 cm. He had normal sensations on clinical examination of the hand. General examination was unremarkable except for the wheeze on auscultation of the lungs on both sides but the patient was comfortable while breathing.

On investigation he tested positive for HIV-1. (He had tested negative for HIV when he had been operated for malignant schwannoma in 1998). X-ray chest was normal. In view of wheeze on clinical examination and the fact that he had malignant tumour earlier, a CT scan chest was done, which showed multiple, small, thin-walled cystic lesions with multiple tiny nodular lesions in the periphery of both lungs. Multiple biopsies were taken which included most of the nodulo-ulcerative lesions and also the original site of surgery in the palm. The reports suggested there was only fibrous tissue in the specimen from the previous operation site in the palm. All the other lesions showed histology of Kaposi’s sarcoma.
DISCUSSION

The awareness of cutaneous Kaposi’s sarcoma as a diagnostic possibility helps in the work-up of nodulo-ulcerative skin lesions. In this case we did not include Kaposi’s sarcoma in the initial clinical differential diagnosis. The rarity of isolated limb involvement in Kaposi’s sarcoma and the past history of malignant schwannoma of the same limb contributed to the absence of Kaposi’s sarcoma as a diagnostic possibility in the work-up of the patient. Our first clinical diagnosis was recurrent malignant schwannoma because of his past history and because the lesions appeared to be along the distribution of cutaneous nerves. Malignant melanoma was considered in the differential diagnosis because of the pigmented nodules, pigmentation in the ulcers and because the distribution of lesions looked like intratiss metastases. Kaposi’s sarcoma was considered in the differential diagnosis only when he tested positive for HIV-1. To avoid bias in reporting, the specimen had been sent to three different pathologists, all the pathologists reported it independently as Kaposi’s sarcoma.

Several different treatments have been used for Kaposi’s sarcoma including surgical excision, radiation therapy, Highly Active Anti-Retroviral Therapy (HAART) and intralesional chemotherapy. The initial treatment of patients with Kaposi’s sarcoma in HIV positive cases is an effective anti-retroviral regimen. If Kaposi’s sarcoma does not regress despite a reduction in HIV viral load and an increase in CD4 cell count, alternative treatments may be considered. Localised lesions may be treated with cryotherapy, laser or surgical excision. But in this case, in view of multiple lesions and involvement of lungs this patient has been put on HAART.

REFERENCES

3. Krown SE. MD, Memorial Sloan-Kettering Cancer Center Clinical Characteristics of Kaposi’s Sarcoma HIV In Site Knowledge Base Chapter Published February 1997.

Benign pneumoperitoneum following road accident: A case report

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ABSTRACT

A 42-year-old male patient a victim of road accident developed pneumothorax which was successfully treated with an intercostal drainage. On the third day he developed sudden abdominal distension with rigidity. X-ray abdomen revealed free gas under both domes of the diaphragm. At laparotomy a thorough search did not reveal any hollow organ injury.

KEY WORDS

Spontaneous pneumoperitoneum, Benign pneumoperitoneum.

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A 42-year-old male patient was admitted to the casualty department with history of road accident. At the time of admission, the patient was semiconscious and in severe respiratory distress. On examination, the patient was severely anaemic and dehydrated. The pulse was feeble, blood pressure 90/50 mm Hg, with