Case Report

Unusual Kaposi’s sarcoma in a renal transplant recipient

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Kaposi’s sarcoma (KS) was first described as an ‘idiopathic multiple pigmented sarcoma of the skin’ by Moritz Kaposi in 1872 [1]. Skin lesions have a dark blue or purplish colour on white skin and often appear pigmented on black skin. Initially, they may be macular and may coalesce to form large plaques. Subsequently, they become infiltrating and may form nodular and fungiform tumours. We present an unusual large skin KS with an unusual fungiform aspect that was successfully treated with surgical excision.

A 37-year-old man received a cadaver renal allograft for end-stage renal disease secondary to reflux nephropathy. Triple immunosuppression was given with cyclosporine A (CsA), prednisolone and azathioprine. The graft functioned immediately and attained normal serum creatinine within 4 weeks.

Four years after transplantation, the patient presented a relevent skin lesion with approximately 12×10 cm on lower abdomen that enlarged progressively during approximately 6 months (Figure 1). A biopsy was performed and revealed the presence of Kaposi’s sarcoma. The physical examination was otherwise normal.

Abdominal and thoracic computerized tomography (CT) scan were performed showing several enlarged lymph nodes in the retroperitoneum, with encasement of the aorta and vena cava. Several lymphadenomagaly adjacent to the cutaneous mass were also seen, consistent with lymph node involvement with KS.

Basal CsA level was within normal range. CsA was discontinued completely, and instead rapamycin was given. The steroids were continued in a lower dosage. The graft maintained good function (GFR=50 ml/min) and there was no other systemic involvement.

Chemotherapy for disseminated Kaposi sarcoma was started with doxorubicin 20–30 mg/m² administered intravenously for 3 weeks. Follow-up serum creatinine concentration was approximately 2.0 mg/dl. Complete remission of the systemic disease was observed on CT images (Figure 2). En bloc resection of an ellipse of skin 15 cm in length, which included the tumour, was then performed. The post-operative course was unremarkable and serum creatinine at discharge was 1.6 mg/dl. As an outpatient he performed two more cycles of doxorubicin 20–30 mg/m² administered intravenously for 3 weeks in two consecutive months. A low-dose cyclosporine (through level 50–100 ng/ml) was reintroduced and low-dose prednisolone (5–7.5 mg/day) was maintained. During the 3-year follow-up period, no further involvement of Kaposi sarcoma was observed and a relatively well-functioning graft (serum creatinine level 1.5–2.0 mg/dl) was maintained.

Iatrogenic KS is a well-recognized complication of organ transplantation and is observed predominantly in kidney allograft recipients.

With the use of potent immunosuppressive agents, malignancies have arisen as an important factor of morbidity and mortality in transplant recipients. Of the immunosuppressive agents, CsA has been most frequently suspected as a cause of malignancy [2].

The incidence of post-transplant KS among kidney transplant recipients varies between racial and ethnic groups being much higher among patients of Mediterraneen, Jewish or Arab ancestry [3].

The exact cause of post-transplant KS remains unknown. It is well documented that like other forms of KS, the disease among transplantation recipients is strongly associated with human herpesvirus 8 (HHV-8) infection [2].

The treatment of KS in solid organ transplant patients is far from being well established. Many treatment procedures have been used like surgical excision, radiation therapy, chemotherapy, reduction of immunosuppressive therapy, or a combination of these various treatments.
The first line of approach to treating post-transplant KS is to reduce immunosuppressive drugs to the lowest level consistent with allograft function. With this reduction, 38–50% of patients will respond, at least partially [4]. Better results are achieved when the disease is confined to the skin.

Widespread multiple lesions have been treated with systemic chemotherapy. Although chemotherapy increases levels of immunosuppression in transplanted patients, it is the logical therapeutic approach in general KS [5]. Excellent responses with tolerable side effects have been attained with single-agent regimens. Combination chemotherapy also proved to be effective [5].

References


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