Transpl Int (1997) 10: 85–86

LETTER TO THE EDITOR

A. Oliveras
J. M. Puig
J. Lloveras

Esthesioneuroblastoma developing in a kidney transplant recipient

Received: 21 February 1996
Received after revision: 2 May 1996
Accepted: 14 May 1996

Sir: Organ transplant recipients have an increased risk of contracting malignant diseases, at least in part because of immunosuppression. The most frequent are skin cancers and lymphomas. Esthesioneuroblastoma is an uncommon tumor arising from the olfactory epithelium [2]. Some 300 cases have been reported [3] but, to our knowledge, it has never before been reported in a renal transplant recipient.

A 38-year-old man who had been on chronic hemodialysis for 7 years because of nephroangiosclerosis received a semi-identical living related kidney in June 1983. He was HBsAg-positive, but HBeAg-negative, and never developed liver disease. His initial and maintenance immunosuppressive treatment consisted of azathioprine (2 mg/kg per day) plus prednisone (average dose 0.14 mg/kg per day). He suffered two acute rejection episodes during the 1st month post-transplantation. Otherwise, the patient showed an excellent graft tolerance, with stable renal function and without clinical or histological evidence of chronic rejection.

In August 1991, the patient complained of repetitive epistaxis. A simple radiograph revealed a right nasal cavity mass involving the paranasal sinuses. CT scan and MRI showed that the mass occupied the right nasal cavity with cranial extension to ethmoidal and frontal sinuses, lateral invasion of nasopharynx soft tissues and the flat and internal side of the orbit, and caudal infiltration of the maxillary sinus. Pathological examination disclosed the presence of an esthesioneuroblastoma. No distant metastases were found. Surgical resection of the mass was carried out, with the edges of the resected piece free of tumor. Four weeks later, a palate biopsy showed evidence of tumor recurrence. The patient received external radiotherapy (total dose 60 Gy). Azathioprine was discontinued, leaving prednisone (7.5 mg/day) as the only maintenance immunosuppression. In August 1992 intolerable epistaxis reappeared with progressive, painful, right malar swelling and tumor growth that invaded adjacent structures. The patient died 15 months after the initial diagnosis.

There is increasing evidence that organ transplantation and its associated immunosuppressive therapy are complicated by an increased incidence of certain cancers. Of the tumors commonly seen in the general population, only two types – squamous cell carcinoma and in situ carcinoma of the uterine cervix – have a higher incidence among transplant patients. A side from these two types of malignancies, a variety of cancers that are uncommon in the general population have also been observed in organ transplant recipients: lymphomas, lip cancers, Kaposi's sarcoma (KS), other sarcomas, carcinomas of the vulva and perineum, carcinomas of the kidney, and hepatobiliary tumors. Furthermore, skin cancers, uterine cervical carcinomas, and carcinomas of the vulva and perineum have a higher incidence in patients with so-called conventional immunosuppressive therapy (CIT) than in cyclosporin (CyA)-treated patients. In contrast, lymphomas and KS have shown a lower incidence in patients with CIT-related tumors than in CyA-treated patients [5, 6].

Whatever the case, a review of the literature did not include any reported case of esthesioneuroblastoma developing in a transplant patient. Moreover, the natural history of cancers developing in renal transplant recipients is often more aggressive than would be expected in the general population [1]. Consequently, it is recommended that immunosuppression be reduced or discontinued in renal transplant patients developing lymphoproliferative disorders and KS which, at some stages, are immunosuppression-dependent. However, there is no convincing evidence that this strategy has any effect on the final outcome of other malignancies.

The patient we report here did not initially receive high doses of immunosuppression and was for a very long time on "low-dose" maintenance therapy. He showed good long-term tolerance, which probably also implied "low immunovigilance", and this might have mode him susceptible to the development of this unusual neoplasia. To our knowledge, this is the first report of such a tumor in a transplant recipient, thus enlarging the growing list of tumors developed under immunosuppression.

References

1. Barrett WL, First MR, Aron BS, Penn I (1993) Clinical course of malignancies in renal transplant recipients. Cancer 72: 2186–2189
2. Bobele GB, Sexauer C, Barnes PA, Krous HF, Bodensteiner JB (1994) Esthesioneuroblastoma presenting as an orbital mass in a young child. Med Pediatr Oncol 22: 269–273
3. Cejas L, Martin J, Alvarez E, Gil J (1992) Olfactory esthesioneuroblastoma. An Otorrinolaringol Ibero Am 19: 329–340
4. Foote RL, Morita A, Ebersold MJ, Olsen KD, Lewis JE, Quast LM, Ferguson JA, O'Fallon WM (1993) Esthesioneuroblastoma: the role of adjuvant radiation therapy. Int J Radiat Oncol Biol Phys 27: 835–842
5. Penn I (1990) Cancers complicating organ transplantation. N Engl J Med 323: 1767–1769
6. Penn I (1991) The changing pattern of posttransplant malignancies. Transplant Proc 23: 1101–1103

A. Oliveras (✉) · J. M. Puig · J. Lloveras
Department of Nephrology,
Hospital del Mar, Passeig Marítim,
25–29, E-08003 Barcelona, Spain