Unusual presentation of post-transplant lymphoproliferative disorder in renal transplant

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Background: Significantly increased malignancy risk exists in patients who undergo renal transplantation. Post-transplant lymphoproliferative disorder (PTLD) is a relatively rare but potentially fatal condition arising after renal transplant. While majority are related to Epstein-Barr virus (EBV), EBV negative cases do occur. Three types are described. Early lesion consists of infectious mononucleosis type. Polymorphic PTLD shows malignant lymphoid infiltrates with mono or polyclonality not meeting all criteria. Monomorphic PTLD show malignant transformation of monoclonal B, T or natural killer cell lines meeting the criteria.

Methods: The patient was a 53-year-old male who underwent a deceased donor renal transplant 4 years ago. He was on maintenance doses of triple immunosuppression consisting of tacrolimus, mycophenolate mofetil, and prednisolone. Three years later he developed fungal infection involving right knee joint (mucormycosis) which was treated liposomal amphotericin B. Six months later he presented with rapidly enlarging multiple nodular lesions over the right knee joint which was initially mistaken as recurrence of fungal infection. The biopsy from the lesion was diagnostic of large B cell lymphoma (co-expression of CD20 and CD45). Serum antibodies for EBV was negative. He was positive for immunoglobulin G antibodies against cytomegalovirus. The donor EBV status was unknown.

Results: Immunosuppressives were withheld and chemotherapy regimen of rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisolone was initiated. Tragically, he succumbed to the illness 3 months later with multiple metastases involving brain and lungs.

Conclusions: PTLD is rare but serious complication which supervenes early in the post-transplantation course within 3–5 years. The site of origin of the tumor in the skin over knee joint is unusual in this case. Aggressive policy of early biopsy in suspicious nodules should be undertaken for early diagnosis of PTLD to improve the prognosis. The mortality is high in late stages.

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