

Current status and management of post-transplant malignancy in Taiwan

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Kidney transplant recipients have a significant increased risk of cancer. The causes of mortality among kidney transplant recipients shifted from early immunologic and non-immunologic graft failure toward cardiovascular diseases and malignancy. In fact, improvement in the long-term allograft survival, together with the increase of both donor and recipient ages, may increase malignancy occurrence. Malignancy becomes a great concern and needs more attention in the care of kidney transplant patients. Instead of skin cancer and lymphoproliferative disorders in western countries, urothelial carcinoma, followed by hepatocellular carcinoma, are two most common types of post-transplant malignancy in Taiwan. Factors associated with the development of cancer in kidney transplant recipients include impaired immune surveillance owing to immunosuppressive drugs, the presence of certain viral infections, genetic and non-genetic carcinogenic factors. In the era of precision medicine, the best strategies for post-transplant malignancy should be individualized. It includes the aggressive routine screening patients for cancer while they are on the transplantation waiting list and after they have received kidney transplantation. The occurrence of hepatocellular carcinoma was significantly reduced after the treatment of chronic viral hepatitis was covered by health insurance. The minimizing doses of immunosuppressive drugs are reasonable to reduce the cancer development, but it is also associated with an increased risk of graft rejection. The inhibitors of mammalian target of rapamycin (mTOR) have been licensed for the treatment of several solid tumors. However, the reduction in cancer risk under mTOR inhibitors should be balanced by an assessment of risk for graft rejection or drug toxicity.