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Risk of Urothelial Cancers after Renal Transplantation

An increased frequency of malignancies in patients with organ transplants and immunosuppression has been reported in many transplant series [1]. In their thorough analysis Biirstner et al. investigated the incidence and possible risk factors for malignancies following renal transplantation among 1,388 patients receiving renal allografts at the University of Munich-Großhadern [2]. In their study a significantly increased incidence of malignant lymphomas, skin cancers and urological malignancies was found. With respect to the underlying renal disorder leading to transplantation a statistically increased risk for malignancies was associated with the diagnosis of pyelonephritis in the described patient population. For urothelial cancers of the urinary bladder and for tumors of the urinary tract a 3.3-fold and a 10-fold increased risk have been observed, respectively.

The occurrence of urothelial cancer in analgesic abusers has been recognized for a long time [3]. We have analysed 2,072 patients undergoing renal transplantation at the Hannover University Medical School between 1968 and 1993 with respect to their risk for the development of urothelial cancer. Among our cohort of renal transplant recipients 11 of the 65 (17%) patients with end-stage renal failure due to analgesic nephropathy subsequently developed urothelial cancers in comparison to only 2 of 2,007 patients (0.1%) receiving kidney transplants for other causes of renal failure (p < 0.001; Fisher exact test). This finding supports the conclusion that the development of urothelial cancers after renal transplantation is unlikely to be related to the use of immunosuppressive therapy, which did not differ between the two patient groups, but that the extremely high risk for urothelial cancer is largely confined to patients transplanted for renal failure due to analgesic nephropathy. Physicians caring for renal transplant patients should be aware of this high risk in patients with prior analgesic nephropathy. Another important observation in these patients is that most urothelial tumors (7 of 11 [64%]) have occurred in the upper urinary tract and were not easily detectable by routine screening investigations with ultrasound or urine cytology. The prognosis of these patients is poor and 8 of our 11 (73 %) patients have died from urothelial cancer. C. Bokemeyer, V. Kliem, M.A. Kuczyk, W.F. Thon, Hannover

References
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