

신장이식 후 암 발생의 양상에 관한 고찰

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Malignancy Incidence after Renal Transplantation: A 20-year Single-center Experience

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Background: With the improved long-term outcome of renal allograft recipients, cancer is a well-recognized complication of kidney transplantation. The trends of malignancy developing in recipients of kidney transplantation are different from that seen in previously healthy individuals and in recipients of transplanted organ other than the kidney. The most prevalent type of cancer in Korea is thyroid cancer, where stomach and colorectal cancer being the second and the third most common types. We also postulate that the patterns of the incidence of malignancy and the time period after kidney transplantation might be different in our center from that of western countries.

Methods: We reviewed thoroughly all the medical records of 2461 renal transplantation patients who had transplant surgery between Jan 1989 and Dec 2009 for complete data collection, and the observation completed at end of 2011. Fourteen patients who underwent kidney and additive or simultaneous transplantation of other organs were excluded.

Results: Among the 2447 patients who underwent renal transplantation during the study period, 138 (5.64%) developed 150 malignancies. The cumulative incidence of cancer was 1.26, 3.60, 5.31 and 6.21 % at 1, 5, 10 and 15 years post-transplantation, respectively. Malignant lymphoma was the most common post-transplantation malignancy (PTM: 25), and the 10-year incidence of malignant lymphoma after kidney transplantation is 13%. Other identified cancers were thyroid cancer (17), non-melanoma skin cancer (15), stomach cancer (12), hepatocellular carcinoma (10), renal papillary carcinoma (10), breast cancer (9), Kaposi sarcoma (9), colorectal cancer (9), bladder cancer (8), lung cancer (6), prostate cancer (4), cholangiocarcinoma (4), cancers of female genital organ (3), pancreatic cancer (2), cancers of male genital organ (2), retroperitoneal sarcoma (1), carcinomatosis peritonei (1), cancer of head and neck (1), small bowel GIST (1), bladder cancer (1), Soft tissue cancer (1). The mean time from transplantation to the diagnosis of cancer after kidney transplantation varied according to the type of malignancy. Most malignancies develop within 2-7 years after kidney transplantation.

Conclusion: Our data shows that contrary to other reports, the malignancies in our center occur relatively low after kidney transplantation, and the incidence of individual cancer showed different findings from those of both Western countries and the other center in Korea. This study also revealed that trends of cancer incidence in renal allograft recipients have different pattern compared with that in general population of Korea. Malignant lymphoma is the most frequently found PTM. Thyroid cancer and non-melanoma skin cancer which are the next common PTMs, and take the greatest part of solid cancers. Early detection of cancer in transplant recipient is important. Therefore, a more active cancer surveillance program should be established considering postoperative time period and the diverse risks associated with transplant recipients.

Key Words: 이식 후 암, 신장이식, 악성 림프종

Post-transplantation malignancy, KT, Malignant lymphoma