Kidney transplantation is a treatment of choice for patients with end-stage renal disease. Chronic renal failure is characterized by weak cellular and humoral immunity. In our paper, we present our experience with malignancy in renal transplant patients. Urology clinic in Belgrade transplanted 411 patients over the period of 16 years. Living donor transplantation was performed for 272 and cadaveric kidney transplant for 139 patients. In the postoperative follow-up, malignancies were diagnosed in 7 of the transplanted patients. Three patients developed basal cell skin carcinoma, one was diagnosed with adenocarcinoma of the transplanted kidney, one developed transitional cell carcinoma of the bladder, and testicular tumors were diagnosed in two patients. Postoperative immunosuppressive therapy usually double or triple when patients are in the immunological high-risk group. Incidence of malignancy according to big health centers is around 1 in every 1000 transplanted patients. It is also noted that the rise of malignancies in transplanted patients in over 50%.

Key words: renal transplant, malignant neoplasm, skin cancer, renal cancer

INTRODUCTION

Renal transplant is the treatment of choice for patients with chronic renal failure. It prolongs life, reduces morbidity, improves the quality of life and enables social rehabilitation of patients with end-stage renal disease. Renal transplantation is a surgical procedure with inherent risk due to anesthesia and surgical procedure itself. There are a few generally accepted contraindications to transplantation: active infection, malignancy, substance abuse or non-adherence to therapy, chronic illness with life expectancy less than one year and poorly controlled psychosis. In ESRD patient medical background and comorbidities are crucial at the time of considering a renal transplant candidate because they can determine the procedure success. Potential one renal transplant candidates must undergo thorough screening for exclusion of malignant diseases, with the individual approach to each patient. Pre-existing malignancies should be extensively evaluated before proceeding to transplantation.

Cancer is a frequent and recognized complication of organ transplantation. The need of continuous immunosuppressive therapy may lead to immunosuppression-related side effects and direct oncologic effect. Kidney transplant recipients frequently suffer skin infection and malignancies due to the effect of long-term immunosuppressive therapy.

MATERIAL AND METHODS

On Urology clinic in Belgrade there have been 411 kidney transplants performed over the period of 16 years. We performed a retrospective review of medical data for these patients in this period. Living donor transplantation was performed for 272 and cadaveric kidney transplant for 139 patients. The age of the patient who underwent kidney transplant was from 8 to 64 years of age in average 39.8. Time spent on dialysis before undergoing kidney transplant was from 11 to 144 months in average 36.8.

RESULTS

In the postoperative follow-up, malignancies were diagnosed in 7 of the transplanted patients. Three of the patients developed basal cell skin carcinoma, one was diagnosed with adenocarcinoma of the transplanted kidney, one developed transitional cell carcinoma of the bladder and testicular tumor was diagnosed in two patients. Two of the patients who developed basal skin cancer underwent living donor and one underwent cadaveric kidney transplantation. Two of the patients were adminis-
trated with triple immunosuppressive therapy and one of them was on immunosuppressive therapy with azothioprine and steroids.

One patient developed adenocarcinoma of the transplanted kidney was on immunosuppressive therapy with azothioprine and steroids and was diagnosed nine year after the cadaveric transplantation and the allograft nephrectomy was performed.

One of the transplanted patients developed stage G3 transitional cell carcinoma of the bladder 49 months after the kidney transplant. Two of the transplanted patients developed testicular tumor in the period from 26 to 72 months after the KT.

Both the patient with TCC of the bladder and two of the patients who developed testicular cancer were on triple immunosuppressive therapy. They underwent surgery, radical orchectomy and radical cystectomy were performed with administration of the chemo therapy.

Patients with the skin carcinoma were treated only surgically with excision of the diagnosed lesions. Four of the patients died as the result of the malignancies after transplantation.

DISCUSSION

Pretransplant medical evaluation aims to diagnose, treat and optimize any preexisting disease and how these can interfere with patient and graft survival. It is important to consider age, cardiovascular disease, and presence of diabetes mellitus, coagulation disorders, obesity, gastrointestinal diseases, active infection and non compliance with treatment and follow up. Some of the urological diseases may not be obvious in the anuric patient and must be considered. Development of the cancer after transplantation is a recognized complication of the continuous immunosuppressive therapy and can lead to immunosuppression related side effects and direct oncogenic effect.

Renal cell carcinoma are rarely described in transplanted patients. Available therapeutic strategies range from allograft nephrectomy to nephron-sparing surgery. Percutaneous radiofrequency ablation is only described in the few cases of the transplanted settings.

Skin tumors, in particular squamous cell carcinoma are the most common malignant condition in the transplanted patients.

The histological diagnoses include squamous cell carcinoma 50%, basal cell carcinoma 37.5% and malignant melanoma in 12.5%. Skin cancer are increased in the transplanted population.

Main risk factors for skin carcinoma are fair skin type and long term immunosuppressive therapy. A follow-up program is necessary for early detection and precancerous conditions. Preventive strategies should include specialist dermatological monitoring and examination.

The single cases of the orthotopic ileal neobladder reconstruction in patients with squamous cell carcinoma of the bladder have been reported. It has been shown that this procedure is safe and feasible in kidney transplant.

SUMMARY

POJAVA MALIGNITETA KOD BOLESNIKA POSLE TRANSPLANTACIJE BUBREGA - NAŠA ISKUSTVA


Postoperativna imunosupresivna terapija je obično dvostruka, ili trostruka kod bolesnika u grupi sa povišenim imunološkim rizikom. Incidenca maligniteta prema rezultatima velikih zdravstvenih centara iznosi oko 1 prema 1000 transplantiranih bolesnika. Takodje je primenjen počet u 50%.

Ključne reči: transplantacija bubrega, maligne neoplazije, karcinom kože, karcinom bubrega

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