

A Successful Case of Renal Transplantation from Deceased Donor Performed 7 Years after Radioactive Seed Implantation Therapy for Localized Prostate Cancer

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Because there had been no evidence of cancer recurrence for more than 5 years, the cadaveric transplantation was performed in our hospital

are valid concerns about secondary malignancies after the therapy. Patients who receive radiation therapy may be at an increased risk for developing secondary cancers compared with patients who do not receive radiation therapy [19,20]. In an analysis of 46,226 men with PCa having a history of more than one radiation therapy, bladder cancer occurred after brachytherapy at a mean of 10 times more often than other cancers [21]. This finding reinforces the need for regular screening for bladder cancer because of potential tumor recurrence in renal transplant patients under immunosuppression.

The second concern arises in terms of the results of solid organ transplantation in patients with a history of pre-existing PCa. Woodle et al. performed an extensive analysis of 90 transplant recipients with a history of PCa and found that stage I and II PCa patients underwent transplantation with an acceptable risk of the recurrence (14% and 16%), whereas stage III patients showed an increased risk of recurrence (36%) [22]. Reported experience with pre-existing PCa is limited, however, and further studies are needed to decide whether PCa precludes solid organ transplantation [23,24].

Conclusion

We describe a case of the renal transplantation from a deceased donor to a patient with a history of radioactive seed implantation therapy for localized PCa. We encountered no technical challenges during the operation that may have been caused by the brachytherapy, and postoperative complications and biochemical failure of PSA have not arisen about 2 years after the surgery. Our experience suggests that radioactive seed implantation therapy for low-risk PCa, as defined by the D'Amico classification system seems to be a valid option for patients awaiting renal transplantation, because such patients have a higher risk of perioperative complications due to hemodialysis during the long waiting time for cadaveric transplant, and its lower invasiveness can be of great advantage. However, careful perioperative anesthesia management is essential to perform not only RP but the brachytherapy for such potentially high risk patients.

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