

RENAL CELL CARCINOMA DETECTED IN A CADAVERIC DONOR BEFORE RENAL TRANSPLANTATION

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In spite of the fact that cadaveric donor transplantation carries a rare risk of transferring malignancy to the recipient, it is a serious complication that should be taken into consideration (1-3). In immunocompetent individuals, the possibility of tumor transmission is quite low. However, immunosuppression which is required in transplantation increases the risk of tumor transfer between donor and recipient significantly (4,5). It is of vital importance to perform the necessary investigations for malignancy in living or cadaveric donors prior to organ transplantation.

Here, we aim to draw attention to the importance of pre-transplantation investigation for malignancy in a cadaveric donor who underwent liver, left kidney, and heart transplantation. The organs of a 42-year-old previously healthy female patient admitted to the intensive care unit with head injury, on whom brain death had been diagnosed, were donated by her relatives. After the organs had been sent to different centers for appropriate recipients by the National Organ Distribution System, the left kidney, liver, and the heart were transplanted. In our institution, the appropriate recipient was selected for the right kidney. The recipient was taken to the operation theater. A mass of 1x1 cm in size, expanding out of the kidney was detected prior to the operation (Figure 1). An excisional biopsy was performed on the lesion which was suspected to be renal cell carcinoma and examined in the pathology laboratory. It was diagnosed as renal cell carcinoma. The transplantation

procedure was stopped.

The information was relayed to the National Organ Distribution Center. Detailed pathological examination of the non-transplanted kidney revealed papillary renal cell carcinoma (Figure 2). Renal cell carcinoma, although rare, may be observed during kidney harvesting for cadaveric organ transplantation. This incidence is reported as 0.9% (1). Serralta et al. (4) reported that they did not observe tumor transfer in the follow-up of 49 months in 6 recipients who received liver transplants from cadaveric donors known to have early-stage renal cell carcinoma (T1 to T2) and early prostate carcinoma (T1). On the other hand, it has been reported in a study that 117 in 270 recipients receiving transplants from donors with known malignancy, showed tumoral development (3). Sack et al. (6) reported that a patient who had undergone a heart transplant from a donor with hypernephroma developed a malignant tumor with the same characteristics as hypernephroma. Current opinion recommends avoidance of organ transplantation from donors with malignancy, excluding low-grade skin neoplasms, in situ carcinoma of organs like the uterus, cervix and certain primary brain tumors (3). Before organ transplantation with a cadaveric donor, despite the donor having no known disease history, consideration of an easily available imaging technique such as ultrasonography in order to rule out the possibility of a renal cell carcinoma ultrasonography is recommended.

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Figure 1. A mass of 1x1 cm in size, expanding out of the kidney

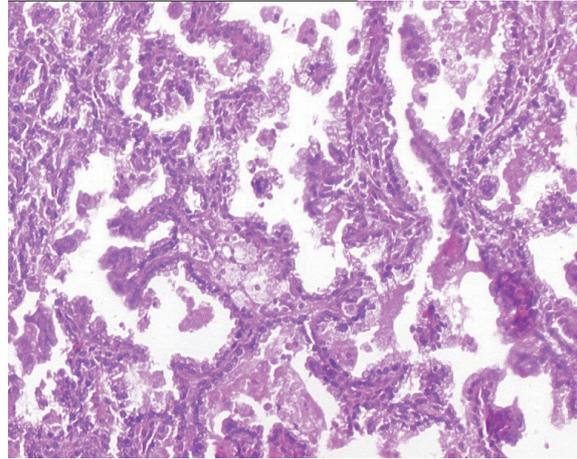


Figure 2. Papillary projections of the tumour. The central core of papillae contain histiocytes (foam cells) (H&Ex200).

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