Kidney transplantation from deceased donors with bloodstream infection: a multicenter retrospective study

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Background: The use of organs from donors with infection is limited because of the possibility of transmission. Herein, we report our experience of transplantation from deceased donors with blood stream infection (BSI).

Methods: Retrospective study of patients undergoing kidney or pancreas transplantation at five tertiary centers in Korea from January 2009 and November 2019 was performed. We analyzed the outcomes of patients who received transplantation from deceased donors who had BSI before transplantation.

Results: During study period, 88 recipients received transplantation from 70 donors with BSI. The most common isolated pathogens from donors were Gram-positive bacteria (72.8%), followed by Gram-negative bacteria (22.1%), and Fungi (5.2%). Appropriate antibiotics were used in 47.1% of donors before transplantation and in 38.6% of recipients after transplantation. In the case of bacterial infection, transmission occurred only in one of 83 recipients (1.2%). A recipient from donor with carbapenem-resistant *Acinetobacter baumannii* developed urinary tract infection early after transplant. The infection resolved after 7 days of targeted antibiotic therapy. In the case of fungal infection, transmission of fungal infection occurred in three out of eight recipients (37.5%). One recipient had received 7 days of antifungal therapy for *Candida* species after transplant; however, persistent fungemia and infected endocarditis developed and required surgical treatment. The other two recipients did not receive antifungal therapy before symptom onset and subsequently died of donor-derived scedosporiosis.

Conclusions: Using organs from donors with bacteremia seems to be a safe option with low risk of transmission. Whether to use organs from donors with fungemia should be cautiously determined.

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