Organ donation from donors with viral hepatitis in South Korea: a 2013–2017 nationwide data analysis

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Background: The number of organ donations from hepatitis B virus (HBV)/hepatitis C virus (HCV)-positive donors is gradually increasing; however, the current status of organ donation from brain-dead donors with hepatitis in South Korea has not been analyzed. This study aimed to analyze this.

Methods: In total, 9,210 brain deaths occurred in South Korea from January 2013 to December 2017. Based on the data from the Korean Network for Organ Sharing and Korean Organ Donation Agency, 2,460 successful transplantations from brain-dead donors have been performed, of which 333 were hepatitis carriers (HBV, n=246; HCV, n=87).

Results: There were 60 and 11 transplantations from HBV- and HCV-positive brain-dead donors, respectively. The main reasons for organ transplantation failure were donation refusal (n=90), unsuitability as donors (n=80), non-brain death (n=45), and cardiac death (n=20). There were 71 and 31 kidney and liver donations, respectively; the average number of organs donated by HBV-positive donors was higher than that donated by HCV-positive donors. HBV-positive donors donated more hearts and livers than HCV-positive donors.

Conclusions: Organ donations from brain-dead donors with hepatitis are not active in South Korea, and the main reasons for failure are refusal to receive organs from donors with hepatitis and unsuitability for donation owing to concerns regarding active viral conditions. For promoting organ transplantations from donors with viral hepatitis, reducing donation refusal rates by educating recipients and their families on the outcomes of organ donation from hepatitis carriers, establishing treatment protocols for infection management after organ transplantations from HBV/HCV brain-dead donors, and accumulating relevant experience are necessary.

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