Low sodium levels pre-transplant does not affect liver transplant recipient survival

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Researchers report that low levels of sodium, known as hyponatremia, prior to transplantation does not increase the risk of death following liver transplant. Full findings are published in *Liver Transplantation*, a journal of the American Association for the Study of Liver Diseases and the International Liver Transplantation Society.

Medical evidence shows that low sodium concentration is common in patients with end stage liver disease (ESLD), with roughly half of those with cirrhosis having sodium levels below the normal range of 135-145 mmol/L. Moreover, previous research suggests that hyponatremia is linked to complications including bacterial infections, kidney failure and encephalopathy, and increases mortality in patients with ESLD. Following liver transplantation sodium levels will return to normal.

"There is much debate within the transplant community about whether to incorporate measures of serum sodium in the organ allocation system in the U.S.," explains lead author Dr. W. Ray Kim from Stanford University in Calif., and formerly with the Mayo Clinic where the research took place. "Understanding the impact of sodium concentrations in patients prior to and following liver transplantation is an important contribution to this debate."

Using data from the Organ Procurement and Transplantation Network (OPTN) researchers identified 19,537 patients 18 years of age or older who received a liver transplant in the U.S. between 2003 and 2010. Subjects were split into three groups: those with hyponatremia (sodium

levels less than 130 mEq/L); normal sodium levels (serum sodium between131-145mEq/L); and hypernatremia (high sodium levels great than 145mEq/L).

"While our findings confirm that low sodium levels prior to transplant were a strong risk factor for waitlist mortality it was not associated with higher death risk following liver transplantation," concludes Dr. Kim. "Our data suggests that using serum sodium levels to determine organ allocation priority will not impact survival following a liver transplant."

More information: "The Effect of Pretransplant Serum Sodium Concentration on Outcome Following Liver Transplantation." Michael D. Leise, Byung Cheol Yun, Joseph J. Larson, Joanne T. Benson, Ju DongYang, Terry M. Therneau, Charles B. Rosen, Julie K. Heimbach, Scott W. Biggins and W. Ray Kim.*Liver Transplantation*; DOI: 10.1002/lt.23860

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