What’s to Blame for Sex Disparities in Allocating Livers?

Researchers analyzed data on more than 80,000 people on the liver transplant list to look for answers.

May 27, 2020 By Benjamin Ryan

Addressing geographic disparities in the availability of transplantable livers from deceased donors alone may not mitigate sex-based disparities in the allocation of these organs.

That’s the main finding of a study published in JAMA Surgery in which a research team analyzed data on 81,357 adults on the liver transplant list who were waiting only for that particular organ.

It is widely recognized that women and men awaiting transplants are not equally likely to receive donor organs. The study authors sought to estimate the proportion of the disparity between men and women in wait list mortality and the receipt of a deceased donor liver transplant (DDLT) that was attributable to clinical and geographic characteristics.

The retrospective study looked at data from the Organ Procurement and Transplantation Network from June 2018 to March 2018.

A total of 36.1% of the cohort members were women, who were 54.7 years old on average, while 63.9% were men, who had an average age of 55.7 years old.

Compared with men, women were 11.1% more likely to die while on the waiting list and were 11.4% less likely to receive a DDLT.

Looking at geographic factors, the study authors found that how organ procurement is organized was the only variable significantly associated with an increased disparity between women and men in wait list mortality, specifically accounting for 22.1% of the disparity.

No geographic factors were associated with the disparity in the likelihood of receiving a donor liver.

Laboratory and Model for End-stage Liver Disease (MELD) allocation scores were associated with 50.1% of the mortality disparity and 10.3% in the disparity in receipt of a DDLT.

The MELD score is a mathematical algorithm based on laboratory data that is meant to estimate the likelihood that an individual will die while on a wait list for a new liver.

Various body measurements as well as liver measurements had the strongest association with sex-based disparities in wait list mortality (125.8% of the increase among women) and receipt of DDLT (49.0% of the increase among women).

“Size mismatch between the donor and intended recipient and incorrect assessments of liver disease severity were more strongly associated with the observed sex disparity in wait list mortality than local supply of organs,” the study authors noted.

“Our findings suggest that addressing geographic disparities alone may not mitigate sex-based disparities, which were associated with the inability of the MELD score to accurately estimate disease severity in women and to account for candidate anthropometric and liver measurements in this study,” they concluded.

To read the study, click here.

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To read the study, click here. https://jamanetwork.com/journals/jamasurgery/fullarticle/2765985

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