

Kidney transplantation provides cognitive benefits for patients with kidney disease

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Individuals with kidney disease often suffer from cognitive impairment, but kidney transplantation can improve their mental performance, according to a paper being presented at the American Society of Nephrology's 41st Annual Meeting and Scientific Exposition in Philadelphia, Pennsylvania.

When comparing the differences of scores between the two groups adjusted to their original scores, transplanted patients performed particularly well on tests of learning and memory compared with dialysis patients.

Source: American Society of Nephrology

While researchers and clinicians consider cognitive decline to be a common occurrence in patients with chronic kidney disease, it is unclear if this impairment is due to patients' advanced age, their chronic health conditions, or potential treatment-related factors. In addition, the effects of surgery and immunosuppressant medications on memory and overall cognitive performance have been poorly studied, but previous research suggests that kidney transplantation may have a beneficial effect on patients' mental function.

To investigate this further, Mark Unruh, MD, and his colleagues at the University of Pittsburgh in Pittsburgh, Pennsylvania, assessed kidney disease patients' cognitive performance before and after kidney transplantation. They did so by using neuropsychological tests related to language, learning and memory, attention, and other brain processes involved with thought and behavior.

The researchers compared test scores of 37 patients before and after they received transplants. A control group of 13 patients who did not receive kidney transplants but received dialysis was also followed over the same period of time.

Dr. Unruh and his team found a statistically significant improvement in performance on tests of verbal learning and memory, attention, and language after patients received kidney transplants. They found no such improvement in patients not undergoing this surgical procedure. In fact, test scores declined in these patients over time.

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