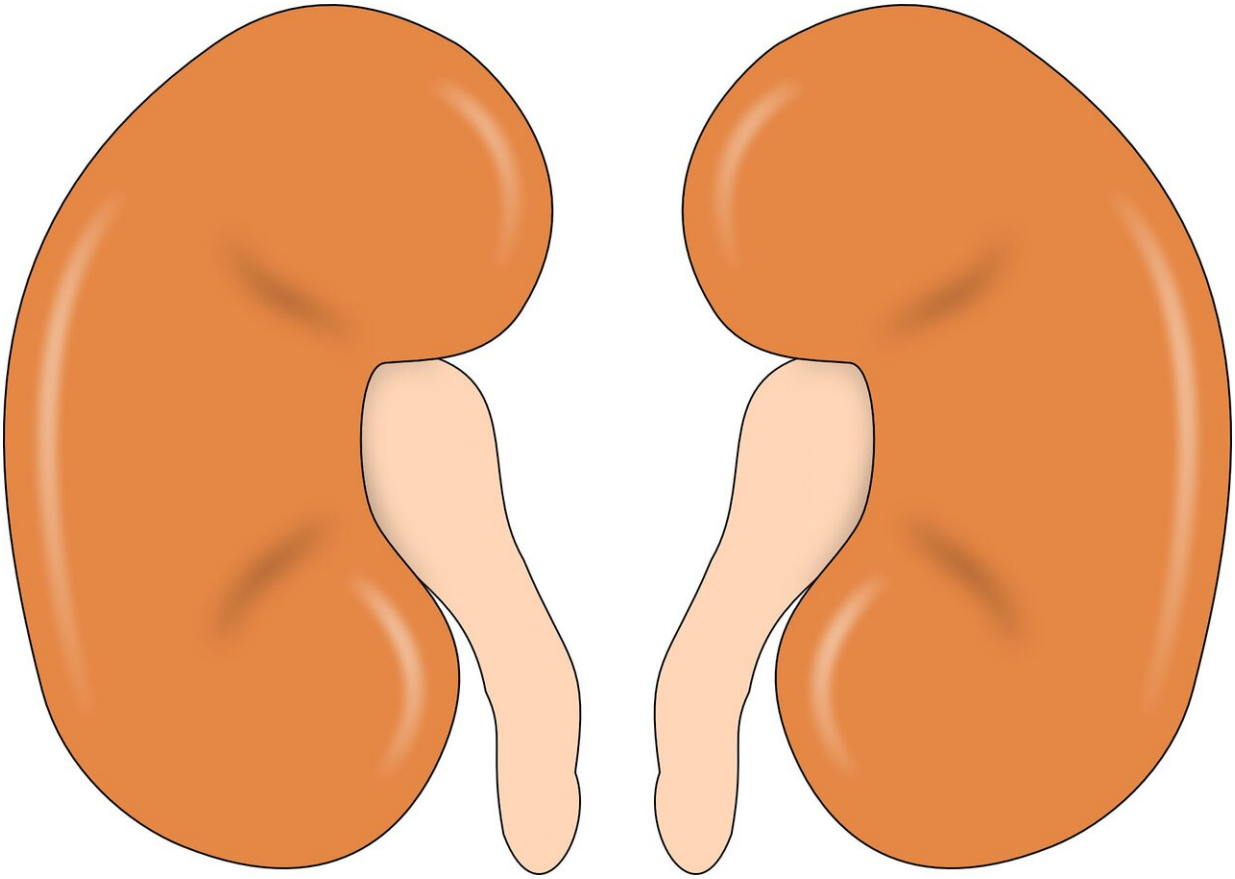
Big study answers treatment question for little known kidney condition

May 17 2022



Credit: CC0 Public Domain

The largest ever randomized controlled trial in IgA nephropathy has found that treatment with methylprednisolone—a cheap, widely used

corticosteroid drug—halves the risk of losing kidney function and kidney failure, and that this can be effectively achieved with fewer side effects if a reduced dose is used.

Researchers say the results of the multi-country study, published today in the *Journal of the American Medical Association* (*JAMA*) will provide clinicians and patients with a clear treatment option with definite benefits outweighing well defined and mostly manageable risks.

IgA nephropathy, also known as Berger's disease, is an auto-immune condition in which a type of antibody produced by the body to fight infection forms deposits in the kidney leading to inflammation and scarring, and progressing to cause kidney failure in many people.

Joint Principal Investigator Professor Vlado Perkovic, who is Dean of Medicine and Scientia Professor at UNSW, Sydney, said that around 10-30 percent of people with the condition go on to develop kidney failure that requires dialysis or kidney transplantation to prevent death.

"There are few proven treatment options so many treatments including corticosteroids have been used in some patients for decades, despite uncertainty about their effectiveness, as well as the ideal dose. This has led to significant regional variability and clinical uncertainty about this treatment," he said.

The Therapeutic Evaluation of Steroids in IgA Nephropathy Global (TESTING) study is a double-blinded, randomized, controlled trial involving 67 sites across six countries that assessed the effects of oral methylprednisolone, a widely available cheap drug, on major kidney outcomes, kidney failure and safety in patients with IgA nephropathy.

503 patients diagnosed with IgA nephropathy were recruited from centers across Australia, Canada, China (including Hong Kong), India

and Malaysia between May 2012 and November 2019. They were randomly assigned to one of two groups treated with methylprednisolone or a matching placebo at

1. full dose of 0.6-0.8mg/kg per day of methylprednisolone or placebo for 2 months reducing by 8mg per day each month (262 participants between May 2012 and November 2015), or
2. reduced dose of 0.4mg/kg per day of methylprednisolone or placebo, also for two months, reducing to 4mg per day each month (241 participants between March 2017 and November 2019),

for a total treatment period of 6-9 months.

"We found that that treatment with methylprednisolone for six to nine months significantly reduced the risk of losing substantial kidney function, kidney failure requiring dialysis or transplantation, or death from kidney disease compared to placebo," said Professor Perkovic.

"However, there was an increase in serious adverse events in those who received methylprednisolone, mainly seen in the full dose regimen with fewer in the reduced dose treatment group."

Joint Principal Investigator Professor Hong Zhang from Peking University First Hospital, Beijing, said that with IgA nephropathy being an immune-mediated condition, the benefits seen were likely due to the immune suppressing action of the steroid treatment.

"A well-known side effect of steroid treatment is an increased risk of infections, but we found that this could be mitigated to a degree by using the lower dose and giving the patients antibiotics to prevent infections," she said.

"This is the strongest evidence yet for the benefit of any treatment for the prevention of kidney failure in people with IgA nephropathy.

"The results provide a treatment option for clinicians and patients, especially at the lower dose, given the net benefits versus the risk of side effects," she added.

Associate Professor Muh Geot Wong, Clinical Academic at Concord Repatriation General Hospital, and honorary research fellow at The George Institute for Global Health said that given that the condition develops slowly, and that there was some indication that the effects of treatment appeared to diminish over time, the research team have now extended the study.

"We are now following a significant number of patients from our original study for another five years so we will have a total of around ten years follow up," he said.

"By then, we hope to have the most comprehensive set of evidence ever collected to help guide the treatment of people with this type of kidney disease."

More information: Effect or oral methylprednisolone on decline in kidney function or kidney failure in patients with IgA nephropathy, *JAMA* (2022). DOI: 10.1001/jama.2022.5368

Provided by George Institute for Global Health

Citation: Big study answers treatment question for little known kidney condition (2022, May 17) retrieved 25 April 2024 from https://medicalxpress.com/news/2022-05-big-treatment-kidney-condition.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.