Researchers Identify Link between Kidney Removal and Erectile Dysfunction

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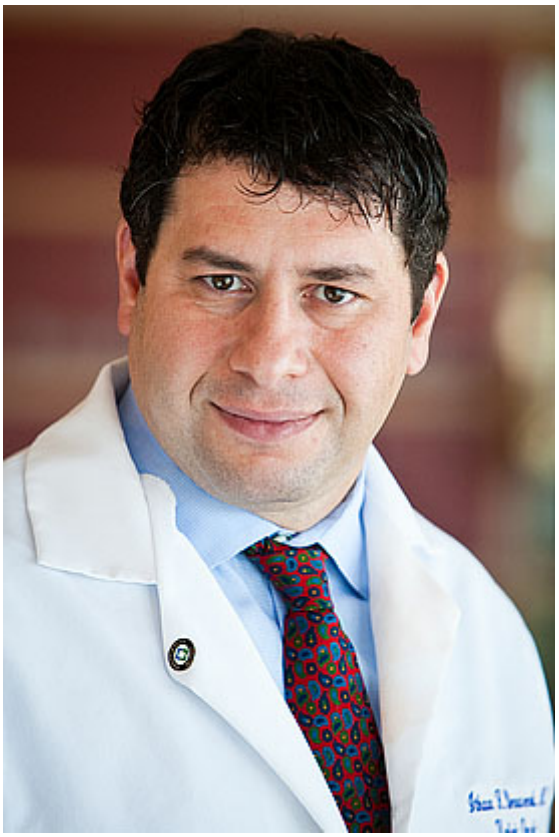
Researchers at the University of California, San Diego School of Medicine have identified a link between patients who undergo total nephrectomy - complete kidney removal - and erectile dysfunction. Results from the multi-center study were recently published online in the *British Journal of Urology International*.



Ithaar Derweesh, MD, urologic surgeon, UC San Diego Health System

"This is the first study in medical literature to suggest that surgery for kidney removal can negatively impact erectile function while partial kidney removal can protect sexual function," said Ithaar Derweesh, MD, senior author, associate professor of surgery, UC San Diego School of Medicine and urologic surgeon at UC San Diego Health System.

The retrospective study evaluated two cohorts of men, totaling 432 patients, who underwent surgery for renal cell carcinoma. One group underwent complete removal of the kidney while the other had kidney-sparing surgery. Sexual function was accessed pre- and post-operatively with a sexual health questionnaire known as the International Index of Erectile Function.

"What we are seeing is a dramatic yet delayed effect. Approximately six years after surgery, patients who had a total nephrectomy were 3.5 times more likely to develop erectile dysfunction compared to those who had kidney reconstruction," said Derweesh.

"The primary argument for kidney-sparing surgery over total kidney removal has been to preserve the kidney filtration function. However, we are also beginning to understand that total kidney removal may also increase the risk of metabolic diseases and significantly decrease quality of life,"

said lead author Ryan Kopp, MD, chief resident, Division of Urology, UC San Diego School of Medicine.

Derweesh added that this is the latest in a series of studies that point to the wisdom of saving the kidney in appropriate patients. Prior research led by Derweesh also shows that partial nephrectomy can reduce the risk of osteoporosis and chronic kidney insufficiency, which can lead to cardiac events and metabolic disturbances. Further investigation is needed to prevent erectile dysfunction in patients and to predict its potential occurrence.

Funding for this study was provided by the Sexual Medicine Society of North America Scholars in Sexuality Research Grant.

Contributors to this paper included Ryan P. Kopp, Jonathan L. Silberstein, Caroline J. Colangelo, Wassim M. Bazzi and Christopher J. Kane of UCSD; Brian M. Dicks and Irwin Goldstein of UCSD and Alvarado Hospital; Reza Mehrazin, Aditya Bagrodia, Robert W. Wake, Anthony L. Patterson, and Jim Y. Wan of University of Tennessee.

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Media Contact: Jackie Carr, 619-543-6163, jcarr@ucsd.edu

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