

Is surgery the best option for penetrating kidney trauma?

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Sameer A. Siddiqui, M.D., director of urologic surgery at Saint Louis University and a SLUCare surgeon. Credit: Saint Louis University

Trauma is the sixth leading cause of death worldwide, and recent studies suggest that 16 percent of renal (kidney) trauma occurs from a penetrating injury, such as a gunshot wound, stabbing or piercing injury from a car accident.

If a patient is bleeding to death from the kidney, surgery can be life-saving. Risks of surgery, however, include potential [injury](#) to adjacent organs, loss of the kidney and longer recovery time. Postoperative renal failure is the most common complication for [patients](#) who undergo the removal of a kidney, called a nephrectomy, for renal [trauma](#).

Because of these serious risks, it is important to study how non-operative management of these injuries stacks up to operative approaches.

To explore this question, Sameer A. Siddiqui, M.D., director of urologic surgery at Saint Louis University and a SLUCare surgeon, and his research team looked at records of trauma patients between 2009 and 2014, and shared the results in a recent paper in *The Canadian Journal of Urology*.

Siddiqui and his colleagues care for patients at SSM Health Saint Louis University Hospital, which is an American College of Surgeons-designated level I adult trauma center. The division of trauma surgery maintains a trauma registry, which researchers reviewed for all penetrating renal injuries.

The team studied the records of 121 renal trauma patients, comparing those who underwent surgery with those who did not, noting their age, gender, mechanism of injury, injury severity and other injuries.

The researchers concluded that conservative, non-surgical management is a feasible option even in cases of a higher grade of injury.

Siddiqui notes that management of renal trauma has undergone considerable change.

"Traditionally, patients with penetrating trauma underwent surgery to explore the kidney and repair it," Siddiqui said. "It was common that kidneys had to be removed if the patient underwent surgery.

"The role of a non-surgical approach is emerging as an option and we're seeing that even many high grade injuries can be managed without surgery, limiting the risks associated with surgery," Siddiqui said. "The main takeaway is that we can safely watch patients with penetrating trauma to the kidney frequently and the patient can avoid the risks of [surgery](#) and not risk losing their [kidney](#)."

More information: Outcomes of renal salvage for penetrating renal trauma: a single institution experience, *The Canadian Journal of Urology* [www.canjurol.com/abstract.php? ... on=1.0&PMID=29900820](http://www.canjurol.com/abstract.php?...on=1.0&PMID=29900820)

Provided by Saint Louis University

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