ROBOTIC NEPHRO-URETERECTOMY VIDEO

WHO IS SUITABLE FOR ROBOTIC-ASSISTED NEPHRO-URETERECTOMY?

Robotic-assisted nephro-ureterectomy may be an option for patients with:

A urothelial kidney cancer arising from the renal pelvis

A urothelial tumour arising from the lining of the ureter

WHAT ARE THE ADVANTAGES OF ROBOTIC-ASSISTED NEPHRO-URETERECTOMY?. Robotic-assisted nephro-ureterectomy offers both the surgeon and the patient various benefits when compared to conventional laparoscopic or open surgery. The entire operation can be performed with a minimally invasive approach without the need to make a large incision or make a cut in the bladder to remove the end of the ureter.

The patient benefits from:

Smaller incisions Less blood loss A shorter hospital stay and faster recovery time

The surgeon benefits from:

Greatly enhanced, high definition 3D vision inside the body Small and precise instruments that allow a greater range of movements than the human hand

HOW IS A ROBOTIC-ASSISTED NEPHRO-URETERECTOMY PERFORMED?



the duration of the procedure, which lasts around 3 hours

Between 3-5 small keyhole incisions are made in the abdomen, through which the surgical instrume and camera are inserted

Carbon dioxide is used to inflate the patient's abdomen, creating space required for the surgeon to view and access the affected kidney

The affected kidney is removed along with the entire length of the ureter

The end of the ureter is carefully disconnected from the bladder and the small hole in the bladder is meticulously sutured to ensure it is water-tight The affected kidney is carefully removed from the body

Carbon dioxide is released and the robotic instruments are removed

Incisions are sealed carefully, to reduce the chance of hernia or scarring

WHAT TO EXPECT AFTER A ROBOTIC-ASSISTED NEPHRO-URETERECTOMY?

You may remain in hospital for 2-3 nights following

your procedure

There may be some pain or discomfort which will be managed with medication

You will be encouraged to sit out of bed and walk around as well as perform deep-breathing exercises to minimize the chance of pneumonia or blood clots in the legs or lungs (DVT/PE) Uncommon complications include:

Leakage of urine into the abdomen from the bladder incision

Damage to major blood vessels or other organs during surgery

Incisional hernia (usually where there are problems with wound healing)

PROCEDURE OUTCOMES

Most patients are able to return to their normal activities within 2-3 weeks following a robotic-assisted partial nephrectomy. Strenuous activities and heavy lifting should be avoided for 6 weeks following surgery to minimize the chance of bleeding or hernia.

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Veccia, A., Antonelli, A., Francavilla, S., Simeone, C., Guruli, G., Zargar, H., Perdona, S., Ferro, M., Carrieri, G., Hampton, L. J., Porpiglia, F., Autorino, R., (2020), Robotic versus other nephroureterectomy techniques: a systematic review and meta-analysis of over 87,000 cases, World Journal of Urology, 38,

[https://link.springer.com/article/10.1007/s00345-019-03020-1], accessed 27/02/21.

Nanigian, D. K., smith, W., Ellison, L. M., (2006), Robotassited laparoscopic nephroureterectomy, Journal of Endourology, 20(7),

[https://www.liebertpub.com/doi/abs/10.1089/end.2006.20.4 accessed 27/02/21.