

ROBOTIC SURGERY IN URO-ONCOLOGY - OUR EXPERIENCE OF 54 CASES AT HCG CANCER CENTRE



Dr. Hemang Bakshi

Director - Uro Oncology & Robotic Surgery



Dr. Chaitasy Mehta

Clinical Associate - Department of Uro-Oncology

Ever since its advent in the year 2000, robotic surgery has revolutionised minimally invasive surgery the world over. The maximum benefit of this technology has been taken by Uro-oncologists throughout the world, with radical prostatectomy being the commonest surgery performed with the robot.

Radical prostatectomy is a difficult operation to perform because of many factors - the location of the prostate deep in the pelvis beneath the symphysis making the access difficult; surrounding vital structures like the external sphincter, the dorsal vein complex, the rectum and neurovascular bundles which need preservation.

For a good surgical outcome the surgeon needs to have negative margins, preserve the external sphincter, spare the neurovascular bundles and do a precise vesicourethral anastomosis. This is difficult to achieve in open surgery due to confined space, limited visibility and bleeding.

Laparoscopy has its limitations due to taxing ergonomics, difficult suturing and nerve preservation due to biplanar instruments and dependence on an assistant for camera control.

The robot makes the operation easier due to improved 3 D vision magnified upto 10 times and flexible instruments having 7 degrees of freedom. The robot also has a huge role to play in partial nephrectomy for small renal tumours. The improved vision and precise

suturing help in achieving best outcomes in negative margins, preservation of renal function and prevention of complications. The da Vinci Xi robot was installed at HCG Cancer Centre, Ahmedabad in May 2016. Since then, we have conducted 54 robotic surgeries in uro-oncology till date. 34 radical prostatectomies, 7 partial nephrectomies, 4 radical nephrectomies, 2 nephroureterectomies, 6 radical cystectomies and one salvage pelvic node dissection.

None of the patients required conversion to open surgery. The urinary diversions - 5 neobladders and 1 ileal conduit - were done extracorporeally. Average surgical console time was 2 to 4 hours while average hospital stay was 3 to 4 days for prostate and kidney cancer surgery and 7 days for cystectomy.

1 patient required peri operative blood transfusion and 6 patients had a positive margin -all were radical prostatectomy patients. We noticed significant improvements in outcomes with robotic surgery and in the coming years more number of patients are expected to benefit with this technology. Being an exclusive uro-oncologist -the only one in Gujarat; has contributed a great deal in shortening the learning curve and improving results.

Robotic Uro - Oncology Cases

