

## Laparoscopic renal engraftment: Points of technique

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Over the last 2 decades, utilisation of laparoscopy in renal transplantation has been limited to donor renal harvest. Due to technical difficulties in achieving intracorporeal vascular and ureteric anastomosis, renal engraftment is performed through incisional approach with consequent morbidity. In 2009, the first laparoscopic renal engraftment was attempted using a cadaver harvested kidney. Following a similar principle we conducted a series of cases of laparoscopic renal engraftment using live related renal donors.

Live related donors with single renal vasculature was selected for this procedure. Renal harvest was performed through laparoscopic approach. Transperitoneal access was gained. A peritoneal flap was created to place the kidney in extraperitoneal location. The right external iliac artery and vein was dissected. Vascular control was achieved. Allograft was inserted through Pfannenstiel incision. Intracorporeal venovenous and arteriarterial anastomosis was conducted. Vascular continuity was established and urine efflux was confirmed. The peritoneal flap was reattached thereby placing the graft extraperitoneally. Ureteroneocystostomy was then performed using intracorporeal sutures.

Between April 2011 and October 2011, 4 cases of renal engraftment was conducted successfully using the same technique. All renal units revealed satisfactory immediate and one year graft function. All patients exhibited early ambulation with limited morbidity. All patients were extremely satisfied with the cosmesis.

Laparoscopic renal engraftment is an innovative concept. The initial results are exciting. The procedure is technically demanding and the operator needs to be well versed with laparoscopic anatomy and intracorporeal suturing. In coming years this technique may well be the standard of choice for renal engraftment.

### Biography

Krishanu Das completed his urology residency in India and received extensive training in advanced laparoscopic surgery at Lakeshore Hospital, Kochi where he was also working as a consultant urologist. Currently he is working as a senior consultant urologist in Al Raffah Hospital, Muscat, Oman. He has published 50 papers in various peer reviewed urology journals and is a reviewer of several journals. He and his urology team at Lakeshore obtained the prestigious best of best videos award in American Urology Association meeting 2012 for the operative demonstration of laparoscopic renal transplantation.

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