## **Laparoscopic Donor Nephrectomy**

Introduction and Objectives: Live donor nephrectomy for kidney transplantation can be performed laparoscopically to reduce the level of donor morbidity but is still a challenging procedure.

Material and Methods: Since the transplantation program has started in King Fahad Specialist Hospital in Dammam in 2008 we are performing living donor nephrectomies on a regular basis. In all cases, the left kidney was removed. The donors were evaluated preoperatively medically, surgically and psychosocially for live donation. In our cases we routinely applied the retroperitoneal access. The kidneys were dissected between the perirenal fatty tissue and the fibrous capsule. The renal artery was identified from its posterior aspect and freed from the surrounding fatty and lymphatic tissue. The renal vein was dissected in order to gain the full, proper length at the level of transsection. Before finally retrieving the organ, a 6cm muscle-splitting incision was made in left inguinal area.

**Results**: Mean operative time was 180 minutes and the mean blood loss was 250ml. The condition of ureters and the vessels in the retrieved kidneys were excellent and it allowed for easy and safe anastomoses with internal iliac vessels and bladder. The postoperative courses were uncomplicated. The implanted kidneys were followed in transplantation departments and their immediate function was noted. Currently both groups of donors and recipients are well.

**Conclusions**: Living donor nephrectomy is a challenging and difficult procedure which should be performed only in centers with experience in laparoscopy of upper urinary tract. Applying the laparoscopic approach for living donor nephrectomy can have a positive effect on rate and quality of kidney donation.

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