Introduction and Aims: We present three cases of laparoscopic transperitoneal live donor nephrectomy with transvaginal extraction of the kidney.

Methods: Since 2012, three female patients with a median age of 49 years underwent laparoscopic live donor nephrectomy with transvaginal extraction of the kidney. Left kidney nephrectomy was performed in 2 patients. Median BMI was 27.4. Patients underwent standard laparoscopic live donor nephrectomy with extraction of the specimen through vagina. The posterior colpotomy incision was repaired laparoscopically.

Results: No intraoperative complication occurred. Mean operative time was 240 min. Mean blood loss was 140 mL. Mean warm ischemia time was 7.3 min. No infection was seen in the donors or in the recipients. Mean length of stay was 7.3 days.

Conclusions: Laparoscopic nephrectomy with transvaginal graft extraction is associated with low levels of pain, early discharge and early return to physical activity. Graft function comparable to traditional laparoscopic nephrectomy.