Laparoscopic complete dissection of Para-aortic Lymph Node(PALND) up to Renal Vein through 5-port laparoscopic approach in cases of gynecologic malignancies: single surgeon's experience

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Objectives:

To introduce the technique of laparoscopic complete dissection of para-aortic lymph nodes up to renal vein level, high level with easy performing and approaching position during laparoscopic operation in patients with gynecologic malignancies.

Methods:

From March, 2014 to September 2017, The forty-nine patients with gynecologic malignancies (endometrial and ovarian malignancy), who required a laparoscopic staging operation or laparoscopic cytoreductive surgery of metastatic nodules on para-aortic area suspected by abdomino-pelvic computed tomography (AP-CT) and Positron emission tomography–computed tomography (PET-CT). The data was analyzed retrospectively with medical records. All laparoscopic PALND was performed up to renal vein level through 5-ports laparoscopic approach by a single surgeon (Y.S.K).

Results

Laparoscopic complete dissection of para-aortic lymph node up to level of renal vein (PALND) were performed in 14 patients with endometrial cancer and 35 patients with ovarian cancer. The mean operation time of PALND was 31.5 ±4.6 minutes. The mean number of dissected para-aortic lymph nodes was 9.6 ± 2.7 proven by pathologic reports.

There were only 2 cases of conversion to laparotomy, which included one of left renal vein injury and one of left gonadal vein. The two cases occurred at early time of running 5-ports laparoscopic PALND up to renal vein. The two cases of laparotomic conversion due to vessel injury was cured by the assistant a vascular surgeon.

Conclusions:

If it is indicated for PALND in gynecologic malignancies, laparoscopic 5-ports approach of PALND up to level of renal vein is fine approaching technique with reasonable operation time.

Table 1. Number of Gynecologic cancer patient who received paraaortic lymphadenectomy

Type of cancer	Number of patients
Endometrial cancer	14
Ovarian cancer	35
Cervical cancer	36

Level of dissection	
Infrarenal (above IMA)	78
Below IMA	4
suprarenal	3