An Oncologic Effect Evaluation of VATS/Laparoscopic and Open Esophagectomy

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Introduction

Oncologic results of open and laparoscopic esophageal surgery have still been debated. Total lymph node number and positive lymph node ratio (LNR) are important for the staging of the disease.
We aimed to compare the effect of surgical technique undergone on the lymph node dissection.

Method

Patient selection: 57 patients who had an esophagectomy due to esophageal cancer between November 1st, 2012 and November 1st, 2020 in Marmara University School of Medicine Training and Research Hospital were screened retrospectively.

Groups: Patients were divided into two groups as Laparoscopic / Video Assisted Thoracoscopic (LS/VATS, n=32) and Open Surgery (OS, n=25).

Measurements: Pathology reports were scrutinized for tissue diagnosis, TNM stage, positive lymph node ratio (LNR), harvested total lymph node (tLN) and metastatic lymph node (mLN) amounts.
Neoadjuvant chemoradiotherapy treatment (NAC) was also questioned.
All data were collected and analysed retrospectively.

Results

36 patients had squamous cell carcinoma, 20 patients had adenocarcinoma, 1 patient had GIST.
25 patients had NAC. There were total regression in 8 patients and partial regression in 2 patients.

Mean value of harvested tLN amount was 18,8±8,6; was 19,2±9,6 in the LS/VATS group and was 18,4±7,4 in the OS group (p>0,05).
This was 20,1±7,7 and 17,1±9,6 in patients who had taken NAT and had not, respectively (p>0,05).
Mean value of LNR was 0,13±0,24 and 0,17±0,28 in the LS/VATS and OS groups, respectively (p>0,05).
There were no significant differences between the laparoscopic and open surgery groups as tLN amount or LNR.

	n=57	LS/VATS, n=32	OS, n=25	p
tLN, mean±sd	18,8±8,6	19,2±9,6	18,4±7,4	>0,05
LNR, mean±sd	0,13±0,24	0,1±0,2	0,17±0,28	>0,05

	NAC +, n=25	NAC —, n=32	p
tLN, mean±sd	17,2±9,6	20,1±7,7	>0,05
LNR, mean±sd	0,11±0,22	0,15±0,26	>0,05

Conclusion

LS/VATS and OS techniques seemed to be statistically equal with respect to LNR and tLN harvested.
Though, considering the proven advantages of LS/VATS such as short hospital stay, less postoperative pain, better cosmesis etc. could be reasons for the preference.