Laparoscopic versus open colorectal resection regarding the lymph node retrieval

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Background
What’s the importance of this subject?

Number Of Lymph nodes and survival in all stage

82,896 patients  \( P > 0.05 \)

More Extensive Nodal Dissection Improves Survival for Stages I to III of Colon Cancer
Number Of positive Lymph nodes and survival in stage III

82,896 patients

\[ P > 0.05 \]

Is there any difference in LN number retrieved between open and laparoscopic surgery
234 patients underwent resections for primary rectal cancer

118 laparoscopic and 116 open resections.

The laparoscopic group had significantly more lymph nodes than the open group

P<0.05

• 24 randomized controlled trials,
• 6264 participants,

P>0.05
Randomized trial of laparoscopic-assisted resection of colorectal carcinoma: 3-year results of the UK MRC CLASICC Trial Group.

Lee et al. 2014. Open versus laparoscopic surgery for colorectal or rectal cancer after neoadjuvant chemoradiotherapy (COREAN trial): survival outcomes from an open-laparoscopic, non-inferiority, randomised controlled trial.


Aim of the Study
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- To compare between open and laparoscopic technique in lymph nodes retrieval

PATIENTS AND METHODS
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Retrograde cohort study

155 cases of colorectal cancer in the period between 9/2014 to 3/2016

Exclusion Criteria:
- Tumors other than adenocarcinoma.
- Incorrect specimen reporting
- Lost pathology

Total number: 155

Laparoscopic Cases 65
Open cases 90
Laparoscopic approach

Standard medial to lateral approach

Open approach

80% were lateral to medial approach

Results
Results:

- Patient age:
  Mean age was 57 years ± 16.84
  (range: 27 to 80 years)
  There was significant age difference between both groups

- Patient Gender:
  - Female: 109
  - Male: 46

\[ P < 0.05 \]
Results:
Site of the tumor:

Results:
Surgical procedure performed
**Lymph node**

![Graph showing comparison between open and laparoscopic lymph node counts.](image)

- **P > 0.05**

![Graph showing comparison between open and laparoscopic counts for various procedures.](image)

- **P < 0.05**
Although, the number of Lymph nodes retrieved in laparoscopic group was higher in all operations, it did not reach a statistically significant level, Except in the LAR group.
Discussion & conclusions

- Both Technique reach the optimum number of LN recommended

Discussion & conclusions

- LAR group:
  The explanation in the difference between both groups can be explained by the ability of laparoscope for a better dissection in the narrow pelvis
Discussion & conclusions

- Recent advances like TME will improve pelvic dissection and will improve the survival
- Laparoscopic colectomy should be encouraged