



Does laparoscopic versus open abdominal surgery for stage I endometrial cancer affect oncologic outcomes?

No. There were no significant differences in disease-free survival, recurrence and location of recurrence, or overall survival in 760 patients treated by total laparoscopic hysterectomy or total abdominal hysterectomy.

Janda M, Gebski V, Davies LC, et al. Effect of total laparoscopic hysterectomy vs total abdominal hysterectomy on disease-free survival among women with Stage 1 endometrial cancer: a randomized clinical trial. JAMA. 2017;317(12):1224-1233.

► EXPERT COMMENTARY

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The objective of the study by Janda and colleagues (known as the “LACE” trial) was to evaluate the equivalency of total laparoscopic hysterectomy (TLH) with staging versus the standard procedure, which is total abdominal hysterectomy (TAH) with staging, for surgical management of women with presumed low-risk, early-stage endometrial cancer.

Details of the study

This nonblinded, randomized controlled multicenter equivalency trial included 760 women from Australia, New Zealand,

and Hong Kong undergoing surgical management of presumed stage I uterine endometrioid adenocarcinoma. All surgeries were performed or supervised by trained gynecologic oncologists. Pelvic lymph node sampling was required but omission was permitted for: morbid obesity, low risk of metastasis based on frozen section results, medically unfit status, or institutional guidelines prohibiting the procedure. Patients were excluded for preoperative nonendometrioid histology, suspected ultimate FIGO stage II-IV based on preoperative imaging, or uterine size greater than 10 weeks' gestation.

The primary outcome was disease-free survival, defined as the time from surgery to the date of first recurrence, which included disease progression, development of a new primary malignancy, or death. Secondary outcomes included disease recurrence, patterns of recurrence, and overall survival. A 7% difference in disease-free survival at 4.5 years postoperatively was prespecified and determined based on previously published literature.¹⁻⁴

By Kaplan-Meier estimates, disease-free survival at 4.5 years was 81.3% in the TAH group and 81.6% in the TLH group, a 0.3% difference. In addition, there were no differences noted in secondary outcomes, further supporting equivalency of the surgical

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FAST TRACK

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**WHAT THIS EVIDENCE
MEANS FOR PRACTICE**

This level I evidence should strongly encourage physicians to offer laparoscopic hysterectomy to patients with clinically suspected low-risk histologic types of stage I uterine endometrioid adenocarcinoma whenever technically feasible, as oncologic outcomes are equivalent up to nearly 5 years.

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modalities. The only significantly different surgical findings included decreased operative time in the TAH group and decreased lymph node dissection completion in the TLH group.

Study strengths and weaknesses

The largest previous trial of more than 2,000 patients examining the method of surgical management was the Gynecologic Oncology Group's (GOG) noninferiority

LAP2 trial.³ This trial has been used widely to promote a minimally invasive approach, but did not actually reach the prespecified statistical goals. The LACE trial, however, successfully reached its statistical targets and is now the largest randomized trial supporting an equivalence in oncologic outcomes.

It is important to recognize the limitations of the LACE trial in the current medical environment. The study population was a very specific group of low-risk women without high-risk histologic subtypes or even moderately enlarged uteri; many institutions would consider offering a minimally invasive approach to these women. In addition, this study did not include robotic minimally invasive surgery, which in many regions of the country is rapidly becoming accepted as the first choice procedure over traditional laparoscopy.⁵ Furthermore, the FIRES trial and others⁶⁻⁸ have demonstrated that utilizing a minimally invasive approach that includes sentinel lymph node identification and removal may be as diagnostic as a full dissection, adding considerations to surgical modality selection. 🔄



Offer laparoscopic hysterectomy to patients with clinically suspected low-risk types of stage 1 uterine endometrioid adenocarcinoma whenever technically feasible

References

1. Fleshman J, Branda M, Sargent DJ, et al. Effect of laparoscopic-assisted resection vs open resection of stage II or III rectal cancer on pathologic outcomes: the ACOSOG Z6051 randomized clinical trial. *JAMA*. 2015;314(13):1346-1355.
2. Stevenson AR, Solomon MJ, Lumley JW, et al; ALaCaRT Investigators. Effect of laparoscopic-assisted resection vs open resection on pathological outcomes in rectal cancer: the ALaCaRT randomized clinical trial. *JAMA*. 2015;314(13):1356-1363.
3. Walker JL, Piedmonte MR, Spirtos NM, et al. Recurrence and survival after random assignment to laparoscopy versus laparotomy for comprehensive surgical staging of uterine cancer: Gynecologic Oncology Group LAP2 Study. *J Clin Oncol*. 2012;30(7):695-700.
4. Creutzberg CL, van Putten WL, Koper PC, et al; Post Operative Radiation Therapy in Endometrial Carcinoma. Surgery and postoperative radiotherapy versus surgery alone for patients with stage-1 endometrial carcinoma: multicentre randomised trial. PORTEC Study Group. *Lancet*. 2000;355(9213):1404-1411.
5. Wright JD, Burke WM, Tergas AI, et al. Comparative effectiveness of minimally invasive hysterectomy for endometrial cancer. *J Clin Oncol*. 2016;34(10):1087-1096.
6. Rossi EC, Kowalski LD, Scalici JS, et al. A comparison of sentinel lymph node biopsy to lymphadenectomy for endometrial cancer staging (FIRES trial): a multicentre, prospective, cohort study. *Lancet Oncol*. 2017;18(3):384-392.
7. Barlin JN, Khoury-Collado F, Kim CH, et al. The importance of applying a sentinel lymph node mapping algorithm in endometrial cancer staging: beyond removal of blue nodes. *Gynecol Oncol*. 2012;12(3):531-535.
8. Darai E, Dubernard G, Bats AS, et al. Sentinel node biopsy for the management of early stage endometrial cancer: long-term results of the SENTI-ENDO study. *Gynecol Oncol*. 2015;136(1):54-59.