Ann Surg Oncol
https://doi.org/10.1245/s10434-021-10875-5

Annals of
SURGICAL ONCOLOGY
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY

ASO AUTHOR REFLECTIONS

ASO Author Reflections: Minimally Invasive Radical Hysterectomy in Cervical Cancer: A Brazilian Multicentric Cohort Study (CIRCOL)

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PAST

Early-stage cervical cancer is usually curable, with 5-year disease-free survival (DFS) rates of $> 90\%$ after radical hysterectomy. In the past several decades, minimally invasive surgery (MIS) has gained widespread acceptance for cervical cancer, primarily due to its improved morbidity profile. However, the results from the Laparoscopic Approach to Cervical Cancer (LACC) trial[1] did not support the oncological safety and theoretical advantages in quality of life and morbidity of MIS, finding that women who were randomized to MIS had over four times the risk of recurrence or death than those who underwent open surgery.

PRESENT

Based on the unexpected results of the phase III LACC trial in 2018,[1] subsequent retrospective reports were published, mostly confirming the LACC trial data, whereas others did not generate the same results. Moreover, a systematic review and meta-analysis that comprised 15 studies reported hazard ratios of recurrence and death that were 71% and 56% higher for patients who underwent MIS.[2] Four main concerns were raised after the LACC trial: the role of the manipulator and the type of colpotomy in recurrence, as well as the safety of MIS in small tumors ($\leq$2 cm) or after conization.

In contrast to the LACC trial, the present study[3] did not find any difference in DFS or overall survival (OS) for MIS compared with open surgery. A total of 776 cases were analyzed, 526 of which were included in the propensity score matching analysis (open, $n = 263$; MIS, $n = 263$). There was no difference in the 3-year DFS rates between open surgery and MIS for tumors $\leq$2 cm (95.7% vs. 90.8%; $p = 0.16$) or >2 cm (83.9% vs. 85.4%; $p = 0.77$). Furthermore, the 5-year OS between open surgery and MIS did not differ for tumors $\leq$2 cm (93.1% vs. 93.6%; $p = 0.82$) or >2 cm (88.9% vs. 89.8%; $p = 0.35$).

FUTURE

Although it is imperfect and prone to criticism, the LACC trial has generated the best evidence to date. Many concerns have been raised, and the LACC trial was not designed or powered to evaluate the safety of previous conization, tumors $\leq$2 cm, or the impact of the surgical technique (uterine manipulator and vaginal tumor containment). In parallel, international societies and the National Comprehensive Cancer Network (NCCN)[4] have revised their guidelines, stating that open abdominal radical hysterectomy is the standard approach for the surgical treatment of early-stage cervical cancer.

First Received: 20 September 2021
Accepted: 20 September 2021

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Published online: 29 September 2021

Finally, researchers should examine the reasons for the unexpected findings, refine the selection of patients, and revise the principles of the oncological technique. The LACC trial should not be considered the definitive trial for surgical approaches in cervical cancer, and, fortunately, two randomized noninferiority trials are ongoing and a third will be launched soon.

DECLARATIONS

DISCLOSURE Glauco Baiocchi, Reitan Ribeiro, Ricardo dos Reis, Andre Lopes, and Paulo Henrique Zanvettor declare no conflicts of interest.

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