The change from open radical hysterectomy (RH) for early cervical cancer, which started approximately 120 years ago, toward a minimally invasive platform, which is currently about 20 years old, is inevitable and has seen remarkable progress over the years. Unfortunately, publication of the LACC study (N Engl J Med 2018 Nov 15;379 (20):1905-1914)\textsuperscript{[1]} has tempted surgeons to shift from laparoscopy back to open surgery for early-stage cervical cancer treatment. Under the circumstances, the victim will be the patients.

The Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy (APAGE) holds different opinions on the conclusion of the LACC study. In this trial, minimally invasive RH was associated with lower rates of disease-free survival and overall survival than open abdominal RH among women with early-stage cervical cancer. Although the LACC study had been praised as a high-quality scientific study based on the randomized control trial, can one really apply a randomized control trial to answer a surgical outcome? The outcome may have been impacted by a surgeon’s learning curve, experience, and technique. On the face value, the LACC study involved 33 centers worldwide, and 631 patients were enrolled over a 9-year period. Nineteen patients enrolled per institution over a 9-year period which calculates to 2.1 patients had minimally invasive surgical procedure per year. This begs to question, is the outcome that is observed in the LACC trial due to inexperience surgeons?

Minimally invasive RH is not a popular procedure yet. Ten minimally invasive RH experiences required in the trial, and it is much less when compared to possibly hundreds of laparotomy experience surgeons have obtained. The procedures have been conducted by the same surgeon, who usually started learning laparotomy first and thus would be better at carrying out laparoscopy than with minimally invasive therapy. Moreover, RH is not standardized; radicality of RH is relatively less in many countries. Furthermore, radicality is comparatively low in early series of laparoscopic RH as surgical complications are not considered seriously. As the surgical skills gradually improved, the specimens became comparable and finally are identical to those of open RH. Surgical results and patient survival will be comparable if not better than open RH.

The conversion rate in minimally invasive RH is relatively low (3.5%) compared to the conversion rate in the LAP2 trial (25.8%) for endometrial cancer.\textsuperscript{[2]} In the LAP2 study, laparoscopic-assisted staging surgery is a relatively simple and easy surgery for endometrial cancer, but techniques of RH for cervical cancer are more complex.

This one finding in LACC should not tarnish previous studies that have demonstrated possible advantages of laparoscopy.\textsuperscript{[3-12]} Laparoscopy is comparably young compared to laparotomy. Making a change is always a challenge. Since most gynecologists have not had enough number of patients with cervical cancer to learn the method of RH, cooperation in training and education in teaching hospitals between Asia and the world are encouraged. A clinical trial is important for medicine, and therefore, training is important for a surgeon. For patients’ safety, accreditation is crucial and urgent worldwide. APAGE will take the responsibility for education, training, and accreditation of minimally invasive oncologic therapy in the Asia-Pacific region. The statement of APAGE for LACC study is as follows:

1. APAGE holds different opinions on the conclusion of the study (N Engl J Med 2018 Nov 15;379(20):1905-1914)
2. The clinical trial should be more rigorous. Surgeons’ capability is a critical factor in the success of surgical cases. The study, however, has not taken that into consideration. On the face value, the LACC involved 33 centers worldwide, but only 631 patients were enrolled. It means only 19 patients per center on the average. Numerically, the 19 patients were collected over a 9-year period. It is 2.1 patients per year. This LACC study is a gross misrepresentation of the current state of early cervical cancer surgery
3. The surgeon’s performance of RH is not standardized. The surgical experience gained from ten laparoscopic operations pales in comparison to experience gained from possibly hundreds of laparotomy performed by surgeons. A surgeon generally begins by learning laparotomy first and therefore has been much more skilled at laparotomy than Minimally Invasive Therapy (MTT)
4. The degree of radicality in RH will influence the outcomes. As the surgeon’s surgical skills improved gradually in minimally invasive surgery, surgical results and patient survival will be comparable if not better than open RH.
5. Surgical instruments, techniques, and concepts have seen much advancement. Newly improved instrument is an important factor in surgical outcomes. This study, however, has not taken that into consideration.

6. RH is an exceedingly complex surgery which requires a steep learning curve. Mastering this procedure is what differentiates gynecologic oncologic surgeons from other surgical specialties. Performing this procedure either via laparoscopically or robotically is even a much steeper learning curve. The radicality of this procedure has not been completely standardized particularly of the parametrial dissection which may contribute to the variability of the outcomes that are observed in the LACC trial as this was not standardized.

7. There are not enough data to show the outcomes in the LACC study. Lower recurrence rate and higher survival rate even in the laparotomic group can be found in the study due to short follow-up period. As the majority of gynecologic oncologists still cannot perform laparoscopic oncologic surgeries well, this type of study should be composed with careful selection of clinical trials.

8. Laparoscopy is comparably young compared to laparotomy. Making a change is always a challenge. This one finding in LACC should not tarnish previous studies that demonstrate possible advantages of laparoscopy.

9. Training and continuing education are crucial to the capacity of surgeons. Therefore, accreditation of qualified surgeons plays an important role for the safety of patients.

10. Cooperation in training for the method of RH is urgent. Since the number of patients with cervical cancer in each teaching hospital is not sufficient, cooperation in training and education between Asia and worldwide is necessary.

11. Minimally invasive surgery is the treatment of choice for patients with endometrial cancer. Minimally invasive surgery for patients with cervical cancer should be performed by qualified surgeons.

12. Owing to the obvious bias in this LACC study, APAGE suggests that the gynecologists should point out the bias in the LACC trial and apply the data from qualified minimally invasive surgery centers instead.

Acknowledgments
The authors thank Chua Peng Teng, MBBS, MOG, AM, FACS, for his help in the language editing of the manuscript.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

References
1. Ramirez PT, Frumovitz M, Pareja R, Lopez A, Vieira M, Ribeiro R, et al. Minimally invasive versus abdominal radical hysterectomy for cervical cancer. N Engl J Med 2018;379:1895-904.
2. Walker JL, Piedmonte MR, Spirtos NM, Eisenkop SM, Schlaerth JB, Mannel RS, et al. Laparoscopy compared with laparotomy for comprehensive surgical staging of uterine cancer: Gynecologic oncology group study LAP2. J Clin Oncol 2009;27:5331-6.
3. Bogani G, Croni A, Uncella S, Serati M, Casarin J, Pinelli C, et al. Laparoscopic versus open abdominal management of cervical cancer: Long-term results from a propensity-matched analysis. J Minim Invasive Gynecol 2014;21:857-62.
4. Wang W, Chu HJ, Shang CL, Gong X, Liu TY, Zhao YH, et al. Long-term oncological outcomes after laparoscopic versus abdominal radical hysterectomy in stage IA2 to IIA2 cervical cancer: A Matched cohort study. Int J Gynecol Cancer 2016;26:1264-73.
5. Soliman PT, Frumovitz M, Sun CC, Dos Reis R, Schmeler KM, Nick AM, et al. Radical hysterectomy: A comparison of surgical approaches after adoption of robotic surgery in gynecologic oncology. Gynecol Oncol 2011;123:333-6.
6. Park YJ, Kim DY, Kim JH, Kim YM, Kim YT, Nam JH. Laparoscopic versus open radical hysterectomy in patients with stage IB2 and IIA2 cervical cancer. J Surg Oncol 2013;108:63-9.
7. Su H, Huang KG, Benuvides DR, Su H, Lee CL. Laparoscopic radical trachelectomy: The choice for conservative surgery in early cervical cancer. Gynecol Minim Invasive Ther 2013;2:39-41.
8. Nam JH, Park JY, Kim DY, Kim JH, Kim YM, Kim YT, et al. Laparoscopic versus open radical hysterectomy in early-stage cervical cancer: Long-term survival outcomes in a matched cohort study. Ann Oncol 2012;23:903-11.
9. Lee CL, Wu KY, Huang KG, Lee PS, Yen CF. Long-term survival outcomes of laparoscopically assisted radical hysterectomy in treating early-stage cervical cancer. Am J Obstet Gynecol 2010;203:165.e1-7.
Lee, et al.: APAGE statement for LACC

10. Jarruwale P, Huang KG, Benavides DR, Su H, Lee CL. Nerve-sparing radical hysterectomy in cervical cancer. Gynecol Minim Invasive Ther 2013;2:42-7.
11. Lim TYK, Lin KK, Wong WL, Aggarwal IM, Yam PK. Surgical and oncological outcome of total laparoscopic radical hysterectomy versus radical abdominal hysterectomy in early cervical cancer in Singapore. Gynecol Minim Invasive Ther 2019;8:53-8.
12. Kanao H, Matsuo K, Aoki Y, Tanigawa T, Nomura H, Okamoto S, et al.

Feasibility and outcome of total laparoscopic radical hysterectomy with no-look no-touch technique for FIGO IB1 cervical cancer. J Gynecol Oncol 2019;30:e71.

Article History:
Received 15 July 2019
Accepted 15 July 2019
Available online 29 August 2019

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Lee CL, Huang KG, Nam JH, Lim PC, Shun FW, Lee KW, et al. The statement of the Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy for LACC study. Gynecol Minim Invasive Ther 2019;8:91-3.