Special Article

The Statement of the Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy for LACC Study

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)[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, andz 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.[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.[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.

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Conflicts of interest

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