Peer Review File

Article information: https://dx.doi.org/10.21037/jtd-21-1302.

Reviewer A:

Comment: This manuscript describes the situation of thoracic surgery in Taiwan well. However, although the topic of this manuscript is only lung cancer, other diseases related to thoracic surgery (inflammation, malformations, transplants, pneumothorax, etc.) should also be mentioned. It would be better to mention the changes in morbidity and mortality in thoracic surgeries over time.

Response: Thank you for your valued comment. The aspect inherent to diseases different from lung cancer had been addressed in the “Techniques” section, wherein we have also added a discussion regarding pneumothorax. We have also included the surgical mortality data before and after the introduction of VATS lobectomy and esophagectomy, as suggested by the reviewer.

Reviewer B:

Comment 1: The authors have reported the current situation of healthcare system, thoracic surgery, and thoracic diseases in Taiwan. This information may be useful for readers especially in Asian thoracic surgeons. Could the authors describe the problems in Taiwanese medical system such as physician supply and uneven distribution of doctors? The readers would like to know the educational system as well as the board certification system for surgeons or thoracic surgeons.

Response 1: Thank you for your valued comment. The Taiwanese education system had been briefly described in the first section of the manuscript, wherein we have also added a comment on the uneven distribution of medical resources in our country.

Comment 2: Does TATCS or TSTS conduct the annual survey or registry for lung cancer or esophageal cancer? Could the authors describe the surgical outcomes of those cases?

Response 2: TATCS coordinates and administers a surgical database which receives data from high-volume centers only. The most comprehensive registry of patients who had undergone surgery for lung and esophageal malignancies is managed by the Taiwan cooperative oncology group (https://tcog.nhri.org.tw/).

Comment 3: Please describe the detail of iVATS. Do the authors use intra-operative C-arm computed tomography (CT) guidance with standard thoracoscopic resection technique?

Response 3: Thank you for this interesting question. We confirm that it is our policy to use intra-operative cone-beam CT guidance. This point has been mentioned for enhanced clarity.

Comment 4: The authors should present how many institutions adopt the iVATS, tubeless VATS, and robotic thoracic surgery in Taiwan.

Response 4: Thank you for your comment. The adoption of iVATS is crucially dependent on the availability of a hybrid operating room. Currently, at least five institutions in Taiwan have introduced iVATS in their surgical practice. Currently, Taiwanese patients are directly billed for all costs of robotic surgery – which is not currently covered by the national insurance system. These costs restrict the widespread use of robotic surgery – which is currently being offered only by 2−3 high-volume surgeons.

Comment 5: Why is the number of lung transplantation small in Taiwan? How will it be improved in future?

Response 5: The Taiwanese lung transplant community continues to be faced by an undeniable organ shortage. Several steps should be taken to improve the current lung transplantation volumes – including the creation of specialized units, the implementation of integrated patient support services, the utilization of carefully selected expanded criteria recipients, and the maximization of the use of donor organs offered for lung transplantation.