

Peer Review File

Article information: <https://dx.doi.org/10.21037/jtd-21-1177>.

Reviewer A:

I read with interest the paper titled “Thoracic surgery in Finland”.

In the paper the authors describe a history, present situation and future perspectives of general thoracic surgery in Finland and especially the university hospital of Helsinki.

The paper is well written and giving a good overview of the specific situation in Finland.

I only have a few (minor) suggestions:

Comment 1: Title: The authors clearly make the distinction between cardiothoracic and general thoracic surgery in their manuscript. Also, since the authors not only focus on the situation in Finland, but also more deeply dive into the specific situation in the university hospital of Helsinki (especially with the figures and numbers), the authors might consider changing their title to “General thoracic surgery in Finland and its implementation into the university hospital of Helsinki”.

Reply 1: Thank you for this suggestion, the title has been reformatted, see line 1.

Comment 2: History: the authors mention a lot of “first performed in Finland” cases. They might consider to also mention the first esophagectomy and the first lung transplant performed in Finland.

Reply 2: We have added information about the first combined heart- and lung and lung transplantation, see line 72-74.

Unfortunately, there is no record of where and when the first esophagectomy was performed in Finland.

Comment 3: Present day: the authors might consider to add one figure with national data as well (given the title of their manuscript)

- Reference 11: Better cite a webpage that can be accessed easily.

Reply 3: This has been added, see ref 12

Reviewer B:

In the article, the authors purpose to report the thoracic surgery in Finland regarding history, current practice, and future prospects.

The authors should be commended for organizing this work and providing interested thoracic surgeons with the recognition of the thoracic surgery in Finland.

However, I still have some suggestions for the authors and questions relevant to the manuscript:

Comment 1: The authors reported several remarkable operations made by predecessors at different time points. I would recommend to make a figure to delineate the evolution of these significant achievements, in order to better present their substantial works.

Reply 1: This has been added as Figure 1

Comment 2: In the Figures 1-3, the authors mentioned the minimally invasive thoracic surgery has taken a leading role in the recent decade regarding the pulmonary lobectomy and oesophagectomy. The numbers of open and VATS lobectomy has arisen in the last 3 years. However, its growth did not correlate with the total cases being operated on either elective or emergent/urgent cases. Could you explain the discrepancy? Did some elective surgeries decrease over the years?

Reply 2: Most likely this is due to the fact that the number of operating tables allocated to our unit / week has not changed. This leads to increased waiting times for nonmalignant diseases and “pushes” some cases to the next year. We have however, not seen any specific disease process to be in significant decline.

Comment 3: As of 2010, the minimally invasive esophagectomy (MIE) has been the predominant surgical approach over the open esophagectomy (70% vs 30%). In 2019, the percentages between the two groups was 96% vs 4%. I would like to know you always perform the total thoraco-laparoscopic esophagectomy with reconstruction or ever use the hybrid procedure such as thoracotomy plus laparoscopy or VATS plus laparotomy? Can you comment on this issue clearly, thank you.

Reply 3: Added a comment to lines 118-123 regarding this subject.

Reviewer C:

Comment: A very interesting description of the history of thoracic surgery in Finland. Thank you!

Minor revisions needed re grammar and style

Reviewer D:

This is an insightful review of the history and the current status of thoracic surgery in Finland. The authors have provided informative data and relevant information on the number and breadth of thoracic surgery cases throughout the years.

I have the following comments and questions:

Comment 1: It is apparent from one of the figures that more thoracic cases are being performed in a minimally invasive fashion and overall. Do the authors attribute the increase in the number of lobectomies for instance to a higher incidence of lung cancer, or this is due to the implementation of lung cancer screening programs? Can they provide any further information regarding any screening programs? More information about the epidemiology of lung cancer, smoking, and esophageal cancer would be helpful.

Reply 1: A comment regarding our rationale to the reasons is now in lines 117-119

Comment 2: Regarding the training in thoracic surgery, it would be insightful if they can provide more information about the Finish requirements for graduation (number of cases, years of training, is there an oral and/or written exam?).

Reply 2: This info has been added to lines 134-138

Comment 3: It would be helpful to have a map of Finland with the location of the major academic centers, along with the population density and more demographic information in general. These can help the reader better understand the practice patterns of thoracic surgery in Finland.

Reply 3: This figure has been added as Figure 2