High Volume Intensive Training Course: a New Paradigm for Video-Assisted Thoracoscopic Surgery Education

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Introduction

- Traditional attachments for Video-Assisted Thoracic Surgery (VATS) training may take up to many months
- Today, Ultra-High Volume Centers (UHVCs) perform very large numbers of operations
  - The Shanghai Pulmonary Hospital (SPH) performed over 10,390 major lung resections in 2016
  - Can an UHVC provide effective training in Advanced VATS in a very short Intensive Training Course?

Method

- From 2013 to 2016, the SPH conducted 2-Week VATS Training Courses for international thoracic surgeons
  - Daily clinical meetings and observations of operations (SPH performs 40-50 operations/day on average)
  - Course includes one full day animal wetlab taught by expert VATS faculty
- As of Dec 2016: 230 surgeons from around the world participated in this course
- An online survey preserving responder anonymity was completed by 156 attendees (67.8% response rate)

Results

1. The Participants

2. Experience at SPH

3. Problem solving

4. Effect of High Volume Intensive Training Course

Before

- Approximately how many lobectomies are performed by you personally every year?
- Approximately what percentage of the lobectomies performed by you personally are done by VATS?
- When performing VATS lobectomy, how many ports do you most commonly use?
- Approximately what is the average time you require to complete a VATS lobectomy (skin-to-skin)?
- Approximately what percentage of your VATS lobectomy operations require conversion to open thoracotomy?

After

- p = 0.441
- p = 0.063
- p < 0.001
- p < 0.001
- p < 0.001

Conclusion

An Intensive Training Course at an UHVC can effectively improve VATS proficiency in a short period of time. This may represent a new, resource-efficient model for future training of young surgeons.