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CAN A TRAINEE SAFELY LEARN VIDEO-ASSISTED THORACOSCOPIC SURGERY (VATS) LOBECTOMY WITHOUT OPEN LOBECTOMY EXPERIENCE?

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Objectives:

Pulmonary lobectomy is the gold standard for the treatment of localized lung cancer; its minimally invasive approach has gained full acceptance in terms of oncological adequacy. Learning video-assisted thoracic surgery (VATS) lobectomy is now fundamental for a trainee in thoracic surgery. The aim of this study is to investigate whether trainee without extensive experience in open lobectomy can safely perform VATS lobectomy for early stage lung cancer.

Methods:

We retrospectively analyzed surgical activity of senior surgeons and trainees in our university hospital from 2011 to 2018. Inclusion criteria were lobectomy or anatomical segmentectomy. Exclusion criteria were bilobectomy or pneumonectomy, arterial or bronchial plastic and wall resection. The analyzed data were type of intervention, surgical approach, conversion rate, surgical times and hospital stay. Two eras were considered: 2011-2014 versus 2015-2018.

Results:

Six-hundred and eighty record were selected from the institutional database: 630 lobectomies (93%) and 50 anatomic segmentectomies (7%). The table shows the trend of the surgical activity divided for type of surgeon and era. In particular, trainees increased VATS approach rate from 22% in the first timeframe to 96.5% in the second (p=0.0001), Conversion rate increased but remain under the rate of staff surgeons. Time of surgery and hospital stay ware substantially unchanged in the two periods (Table 1).

Conclusions:

Our study showed that trainees, even with partial experience in open lobectomy, could safely perform VATS lobectomy for early stage lung cancer. The trainee practice did not affect surgical time and outcomes. University hospitals can safely introduce VATS lobectomy in the training program without the concern to offer a consistent practice in open lobectomy as a "preliminary" procedure.

Table 1					
	Operations	VATS rate	Conversion rate	Time of surgery	Hospital stay
	2011-2014				
Junior	18	(4) 22%	0%	233,75	5,75
Senior	315	(142) 45,1%	17,6%	232,3	7,56
	2015-2018				
Junior	29	(28) 96,5%	7,1%	259,96	6,88
Senior	318	(236) 74,2%	12,8%	239,86	6,84

Disclosure: No significant relationships.

Keywords: resident, video-assisted thoracic surgery, learning curve