



## VATS: the age of maturity

In 1585, Tullio Cesare Aranzi used the focused light source for endoscopic examination of nasal cavity passing through the flask with water. Nevertheless, the founder of endoscopy is considered Phillip Bozzini who realised the “Leichtleiter”, an aluminium tube illuminated by candles and equipped with a mirror to reflect the image and light to visualise the urogenital tract in 1806. In 1901, Georg Kelling carried out the first experimental laparoscopy and thoracoscopy. Sir Francis Richard Cruise performed the first thoracoscopy in humans in 1865 overlooking the pleural cavity of a patient with a pleuro-cutaneous fistula. Thoracoscopy and laparoscopy were established as standard methods by Hans Christian Jacobabaeus in 1910. Since 1991, when Giancarlo Roviario performed the first VATS lobectomy in Milan, several techniques for mini-invasive lung resection have been described (1). The development of major Video-Assisted Thoracic Surgery (VATS) surgery has almost two decades. At present, many complex thoracic surgical procedures can be safely performed by VATS, with the well-known advantages of smaller wounds, less pain, shorter hospital stay, and with as good outcomes compared with open surgery.

Nevertheless, even in recent times some surgeons still joshed the acronym VATS as *Very Hazardous Thoracic Surgery*. Notwithstanding the sceptic surgeons and without doubts, the single greatest advance in Thoracic Surgery of our generation has been the advent of VATS. VATS is now so well recognised around the world that it is no longer correct to describe it as an emerging or new approach. It is now the conventional technique for almost every standard thoracic operation in some centres around the world. Since the birth of VATS, however, the stride of progress appears to have slowed (2).

VATS, therefore, is arrived at her age of maturity: the threshold of adulthood as recognised or declared by law. It is the moment when the approach ceases to be considered children and assume control over their actions and decisions, thus terminating the control and legal responsibilities of their parents (the thoracotomy approaches) over them. Most countries around the world set the age of majority at 18, but we had waited the 21 years. This age does not necessarily correspond to the mental or physical maturity of VATS. VATS, although widely applied, still has some hitches for surgeons because of the loss of 3D vision, sense of touch and dexterity. Some systems, such as telepresence operation systems have been developed to solve these problems by increasing the ability, adding motion tracking and filtering tremor movements. It can also be applied to the field of education that surgeons can perform VATS surgery by using virtual reality simulators. Nonetheless, these obstacles will be surmounted shortly. Regarding the cost analysis of VATS in comparison to thoracotomy, it is well known that the cost of equipment and disposables is higher for VATS. However, VATS has significant advantages like the more rapid recovery and shorter hospital stay. Therefore, procedure-related expenses of VATS are higher and the benefits too (3).

This focused issue of *Video-Assisted Thoracic Surgery* Journal aims to review current knowledge and discuss controversies in the development of *VATS* with interesting papers from leading authors. And this will be the first focused issue to talk about this topic in such a targeted journal.

### Acknowledgments

*Funding:* None.

### Footnote

*Provenance and Peer Review:* This article was commissioned by the editorial office, *Video-Assisted Thoracic Surgery* for the series “VATS: the age of maturity”. The article did not undergo external peer review.

*Conflicts of Interest:* All authors have completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/vats.2017.03.03>). The series “VATS: the age of maturity” was commissioned by the editorial office without any funding or sponsorship. LB served as the unpaid Guest Editor of the series and serves as an unpaid editorial board member of *Video-Assisted Thoracic Surgery* from Jul 2016 to May 2019. PS served as the unpaid Guest Editor of the series. The authors have no other conflicts of interest to declare.

**Ethical Statement:** The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Received: 15 February 2017; Accepted: 28 February 2017; Published: 29 March 2017.

doi: 10.21037/vats.2017.03.03

**View this article at:** <http://dx.doi.org/10.21037/vats.2017.03.03>

doi: 10.21037/vats.2017.03.03

**Cite this article as:** Bertolaccini L, Pardolesi A, Solli P. VATS: the age of maturity. Video-assist Thorac Surg 2017;2:18.