

Prof. Calvin Sze Hang Ng: always keep an open mind to embrace tomorrow's technologies

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Editor's note

The 2018 Asia Thoracic Cancer Care Summit (ATCCS) was held in Hong Kong from April 13–14, 2018. The summit was organized by the Division of Cardiothoracic Surgery, The Chinese University of Hong Kong. All speakers are world-renowned experts in thoracic cancer management, who came together at the Sheraton Hong Kong Hotel to share their professional opinions on managing chest and lung cancers in the hope for future advancement and innovation. During the summit, AME was honored to invite Associate Professor, Calvin Sze Hang Ng (*Figure 1*), the Program Director of the ATCCS, to have an explicit interview with us.

Expert introduction

Professor Ng is an Associate Professor in Thoracic Surgery at Prince of Wales Hospital, The Chinese University of Hong Kong. He is also the Program Director of the 2018 ATCCS.

Professor Ng graduated with BSc from Imperial College, London in 1998 with 1st class Honors and Dudley Prize (1st in his class), and MBBS with Honors, Distinction in Surgery and Anthony de Rothschild Medal (1st in surgery) in 1999. He is an early pioneer of single port (uniportal) video-assisted thoracic surgery (VATS) in the Asia-Pacific region. In 2012, he performed the first single port VATS lobectomy in Hong Kong. Since then, he has been an advocate of the technique through his role as a Program Director of Single Port VATS Course in Hong Kong. Prof. Ng's major research and interests in recent years include: innovative technologies in VATS, hybrid operating room (HOR) in VATS & ENB, uniportal VATS, chest wall reconstruction and molecular biology of lung cancer.

Prof. Ng looked back on how he got interested in thoracic surgery, he felt as if it was only by chance. Having

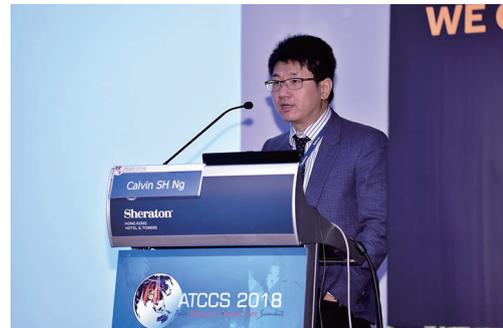


Figure 1 Prof. Calvin Sze Hang Ng was making an opening speech for ATCCS 2018.

been trained professionally in Britain, He returned to Hong Kong to follow his mentor, Prof. Anthony Ping-Chuen Yim, and decided to focus on the study of cardiothoracic surgery since then. Prof. Yim is a master of VATS, whom has pioneered the development of VATS in Asia. Later, Prof. Ng found himself more indulged in cardiothoracic surgery, especially for VATS. Since 2000, he saw that a lot of minimally invasive approaches and techniques were beginning to be developed. He seized the opportunity to go with the flow and gradually took the lead in the development of uniportal VATS surgery in Hong Kong.

Summary

Prof. Ng elaborated on how he brought the uniportal VATS technology to Hong Kong. In 2011, after he read Dr. Diego Gonzalez-Rivas's publication on uniportal VATS lobectomy, he was greatly inspired and he wondered how he could successfully perform it in Hong Kong. After around 5 to 6 months of preparations, he carried out the first uniportal VATS surgery in 2012. However, he found that there were some technical challenges, such as the angulation between the incision and the hilar structures and the limited field of



Figure 2 Interview with Prof. Calvin Sze Hang Ng: always keep an open mind to embrace tomorrow's advanced technologies (1).

Available online: <http://www.asvide.com/article/view/25201>

vision, as well as minimizing the size of the wounds. Thus, he attempted to introduce and utilize different advanced instruments to perform surgery and see if the surgical outcomes will be improved.

With the aid of these advanced surgical instruments, the surgical results were remarkable in terms of a massive improvement of vision adjustment and angulation problem, which were particularly helpful for surgeons in minimizing the size of wounds when performing surgery. As these advanced surgical instruments were proven to be essential in improving surgical efficiency, Prof. Ng and his team established a close network with many biomedical engineering faculty thereafter. With their joint efforts of introducing different groups of medical instruments to Hong Kong surgeons, those instruments nowadays are being widely used and adopted in the region. When asked if he could share some interesting stories with us, he smiled and said that the development, expansion and continuous quest to improve the single port approach has been his adventure. He pointed out that the beauty behind the use of the advanced instruments while performing the single port lobectomy on lung resection, was that it reignited the interest of companies to work with the thoracic surgeons causing “almost the whole industry to grow now”.

Prof. Ng remained positive towards the future technological development and challenges. He stressed that many training programs are carried out in Hong Kong for young doctors to learn more about and tips and tricks of surgical techniques. Hence, they will be able to complete the uniportal lobectomy surgery more smoothly and cleanly. Ultimately, he thought that robotic single port technology

perhaps will become the mainstream once the technology is mature enough.

Prof. Ng reassured the important of organizing ATCCS this year. This summit has put forward many collaborations and innovations among different disciplines of research. Through the in-depth exchange of knowledge, we can learn various surgical approaches for different disease changes, especially for lung cancer. On the other hand, we can also get to know more about how to deal with some of the problems in lung pathologies, such as marking techniques, localization techniques and the use of bronchial therapies, diagnostic technique including liquid biopsy and 3D printing.

Finally, when being asked if Prof. Ng can give any advice to young surgeons in cardiothoracic surgery, he simply put, “*We have to keep an open mind to the development of science and technology.*” As surgeons managing thoracic malignancies, we can no longer be solely focused on technical aspect of surgery. In this day and age, knowledge towards diagnosis and treatment of many thoracic diseases are increasing rapidly and highly complicated. Therefore, as long as we keep an open mind and make good use of advanced medical technology, surgeons can be more involved in the different aspects of lung cancer management to provide a highly personalized treatment algorithm.

Interview questions

- (I) We realize that you have an outstanding experience in cardiothoracic surgery for over 20 years, what makes you interested in cardiothoracic surgery?
- (II) We learn that you performed the first single port VATS lobectomy in Hong Kong in 2012, did you encounter any difficulties when bringing the techniques to Hong Kong? Any interesting stories?
- (III) As an early pioneer of single port (uniportal) VATS in the Asia-Pacific region, how do you see the development and challenges of this surgery in Hong Kong today?
- (IV) Thank you for leading the focused issue dedicated to ATCCS 2018. Is there any reason you want to initiate this focused issue in the first place? How is it different from other issues in the same field?
- (V) As an editorial board member of *JTD*, do you have any words/advice to surgeons in the same field?

For more information about this interview, please check out the following video (*Figure 2*).

Acknowledgements

None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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