### Professor Hiroyuki Oizumi: how to identify the intersegmental plane

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The 8th Zhongshan Forum Focused on Minimal Invasive Thoracic Surgery was held in Zhongshan Hospital of Fudan University in Shanghai on May 13th 2017. Experts from all over the world exchanged their opinions and discoveries in the field of minimally invasive thoracic surgery over the forum. AME Publishing Company was honored to have the opportunity to interview Prof. Hiroyuki Oizumi (*Figure 1*) from Yamagata University Faculty of Medicine and share with our readers his experience as a thoracic surgeon in Japan. Please check the video for more information (*Figure 2*) (1).

# Comments on the methods of identifying intersegmental plane

Prof. Oizumi noted that nowadays a variety of methods have been devised and used clinically to secure an operative field in a thoracoscopic surgery in Japan. The most popular one is the inflation method as it is relatively simple in practice to identify intersegmental plane. Dye injection to the bronchus is another alternatively used method to visualize the segmental border. Also infrared fluorescence with an intravenous injection of indocyanine green (ICG) have been reported recently. However, these methods all require some special instruments and procedures and can be utilized only by institutes equipped with certain devices. Other methods, such as slip knot method, which can create an inflation-deflation line by merely using a surgical thread, is also highly recommended by Prof. Oizumi. It can be applied without time restriction and is available for institutes without the most advanced devices.

Video-assisted thoracic surgery (VATS), with its great visual guidance function, is one of the latest techniques used in today's pulmonary segmentectomy. Prof. Oizumi believes that there will be an increase in the use of this method in the future.

# Suggestions to young surgeons learning VATS segmentectomy

Prof. Oizumi claimed that although VATS is not a



Figure 1 Professor Hiroyuki Oizumi.



**Figure 2** Prof. Hiroyuki Oizumi: how to identify the intersegmental plane (1).

Available online: http://www.asvide.com/articles/1786

common skill worldwide at this stage, young surgeons could still practice and obtain experience in some ways. For instance, he encourages young surgeons in his institute to do the resection of S6 or lingular segment even before the experience of lobectomy, because in the process even bleeding occurs in pulmonary artery, it can be controlled and managed more easily than lobectomy. He also recommended the method of practicing on pig lungs due to their similarity to the human lungs. Such practices can train young surgeons to have clear anatomical understanding towards human lungs in the future as well.

#### **Expert introduction**

Prof. Hiroyuki Oizumi is the Associate Professor of the Department of Cardiovascular, Thoracic and Pediatric of Surgery (the Second Department of Surgery) in Yamagata University Faculty of Medicine, the Professor of the Division of General Thoracic Surgery in Yamagata University Hospital and the Vice-chairman of the Endoscopic Surgery Center in Yamagata University Hospital. He is also a member of the Japanese Society of Thoracic Surgery. After graduated form Yamagata University Faculty of Medicine, he worked in General Thoracic Surgery Yamagata University Hospital from 1988 to 2014. Prof. Oizumi is an expert of VATS segmentectomy and is one of the pioneer surgeons in the world performing thoracoscopic anatomical segmentectomies to treat disease such as lung cancer and mediastinal tumors. He has also published several papers describing the surgical procedure and their results in the most influential medical journals of thoracic surgery.

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#### Footnote

*Conflicts of Interest:* The author has no conflicts of interest to declare.

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