



A global organization dedicated to promoting the art and

science of bronchology and interventional pulmonology

# WABIP NEWSLETTER

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January 2013

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## Opinion/Editorial

As Editor-in-chief, let me welcome you on behalf of the entire editorial team to the **first edition of the WABIP newsletter!** I am a Thoracic Surgeon at the Division of Thoracic Surgery at Toronto General Hospital with special interest in minimally invasive diagnostics and therapeutics and am very excited about this new role.

This newsletter will be delivered to all WABIP members as a triannual service including the newsletter and related website/webinars privileges. Topics will include research, education and training,

technology, tips from the experts, WABIP news and links to lectures/webinars. Our goal is to inform all of our members that include thoracic surgeons, oncologists, radiologists, bronchologists, pulmonologists and bronchoesophageal specialist medical professionals about these topics with the intent to expand the range of treatments, research and eventually reach all fields of chest interventions.

I would like to invite and encourage all readers to contact me through our WABIP newsletter email:

[newsletter@wabip.com](mailto:newsletter@wabip.com) to provide feedback or suggestions on future topics. We would like to share news that's useful and relevant, staying up to date with what's going on and what's new. I would also like to take this opportunity to introduce Judy McConnell, who is providing administrative support for the newsletter.

Sincerely,

Dr. Kazuhiro Yasufuku

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## News of Humanitarian Activities

The WABIP recently donated a Pentax flexible fiberoptic bronchoscope and portable light source to the 400 bed Hospital Regional del IEES Dr. Teodoro Maldonado Carbo in the coastal city of Guayaquil (pop. 3.5 million), Ecuador. The donated flexible bronchoscope will allow pulmonologists at this regional community teaching Hospital to begin a bronchoscopic practice, and to perform bronchoscopy in critically ill individuals.

The WABIP on-site team from Argentina and the United States additionally conducted a two day introduction to flexible bronchoscopy program for physicians coming from five different medical centers in the region. The team also provided insight regarding the design of the hospital's new bronchoscopy suite being made

from two converted patient rooms on the pulmonary ward.

Furthermore, during the same week, and with help from the Ecuadorean Pulmonary Society and the Hospital Carlos Andrade Marin, a two day instructional program in flexible bronchoscopy and conventional transbronchial needle aspiration was held for physicians representing six different hospitals in the capital city of Quito, approximately one hour away by air. Bronchoscopy Education Project Resources were provided to all participants at both institutions. All lectures and hands-on training sessions were conducted in Spanish.

The WABIP team made many new friends during their week-long stay. Much was learned about health care delivery and broncho-

scopic practice in Ecuador. Of course, the on-site team was thoroughly enchanted by the incredibly warm Ecuadorean hospitality. The WABIP looks forward to welcoming bronchoscopists from Ecuador into the South American society of Respiratory Endoscopy (ASER) and the WABIP!



Dr. Silvia Quadrelli (project leader) presenting flexible bronchoscope to Dra. Rocio de Janon Quevado and pulmonary department chief Dr. Jose Ulloa Correa at the Hospital Regional del IEES Dr. Teodoro Maldonado Carbo in Guayaquil, Ecuador (Drs Fernando Galindez and Henri Colt in back row).

# Research

## ***Interventional Pulmonary Procedures Prolong Survival***

### **These procedures offer much more than just palliation**

A recent study published in "LUNG"<sup>1</sup> confirms that interventional pulmonary (IP) procedures help liberate patients with malignancy-associated central airway obstruction from mechanical ventilation.

In this study a review of literature of case reports and case series from the past 20 years shows that IP procedures were greater than 60% successful in liberating patients from mechanical ventilation. Therapeutic

interventions with individual modality such as laser ablation of endoluminal tumor and airway stenting for intrinsic and extrinsic compression of airways liberated 53% and 87.5% of patients from ventilators and allowed further therapy respectively. Another case series in this study reveals that a combination of rigid bronchoscopy with laser ablation and airway stenting for central airway obstruction was successful in extubating more than 58% of patients and allowing them to get definitive chemo therapy.

Over two decades of data shows that interventional pulmonology procedures served to palliate respiratory symptoms, **prolong overall survival**, allow for additional cancer treatments, and reduce hospitalization costs.

### Reference:

1. Boyd M, Rubio E. The utility of interventional pulmonary procedures in liberating patients with malignancy-associated central airway obstruction from mechanical ventilation. Lung. 2012 Oct;190(5):471-6.



**Dr. Janeth Samson (seen from back) teaching bronchoscopy step by step using hands off/hands-on techniques and low-fidelity airway models.**

# Education and Training

In a collaborative project with the Pulmonary Research Foundation of the Philippines (Philippine Society of Bronchology and Interventional Pulmonology), a 2.5 day Introduction to Flexible Bronchoscopy and Bronchoscopy Master Class (train the trainers) educational program was conducted at the Center for Respiratory Medicine of University of Santo Thomas Hospital in Manila. A dozen regional opinion leaders and fifty trainees and physicians-in-practice came from thirteen different medical centers to participate in this educational experience. This was the center's third yearly course pertaining to introductory material, but was the very first time educators from around the country

gathered to discuss how they would implement a more uniform and structured program of bronchoscopy education throughout the Philippines.

Bronchoscopy Education Project resources included standaridized didactic lectures, interactive sessions, checklists, assessment tools, the Essential Flexible Bronscopist® eBook, and patient-centered practical approach exercises to help participants enhance their cognitive and experiential knowledge of bronchoscopy. Hands-on technical skills such as airway inspection, Bronchoscopy step-by-step exercises, emergency intubation, and conventional TBNA were practiced using inanimate models. All lectures and

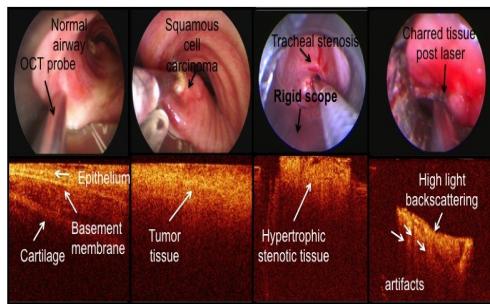
hand-on training sessions were conducted in English.

The WABIP gratefully acknowledges the program's organizer Dr. Julius Dalupang (Master Instructor, Bronchoscopy International), medical staff, and Dr. Janeth Samson (Certified Instructor, Bronchoscopy International) for conducting an exemplary program!

## Technology Corner

### Optical Coherence Tomography: Clinical Applications in Pulmonology

Optical Coherence Tomography (OCT) is a non-radiating imaging modality that uses infrared light waves. OCT is based on principles of interferometry to generate high-resolution images of target tissues. Its spatial resolution is 2-20 microns. Scanning depth is 2-3 mm. This allows: (a) visualization of layered airway microstructures (i.e. epithelium, basement membrane, lamina propria), (b) visualization of laser-related effects on airway mucosa, and (c) assessment of the extent of airway abnormalities



not readily identified by white light bronchoscopy (1, 2) (Figure).

OCT detects airway tumor invasion through the basement membrane. In peripheral lung lesions, OCT, similar to radial probe ultrasound (REBUS), can confirm intra-lesional location of a guiding catheter, facilitating sampling from a target lesion. OCT images of "bulky" central airway abnormalities, however, are bland, showing lack of normal tissue microstructures. Differentiating malignant from benign pathology is difficult (Figure). New developments (Doppler-, speckle variance -, polarization sensitive- OCT) may improve this process (3). In small airways, OCT visualizes changes from morphological remodeling and airway thickness in patients with asthma and COPD (4). OCT may one day have a role in monitoring local effects of bronchial thermoplasty or drug therapy. While the smooth airway muscle and cartilage are not yet clearly visualized using currently available technology, polarization sensitive OCT and combined OCT- REBUS are promising.

Advancements in spatial and temporal OCT imaging resolution may overcome current limitations related to image acquisition speed, motion artifact and 3D imaging. New probes that fit through a flexible bronchoscope's working channel or 22 gauge needles will allow OCT to become part of a multimodal technology platform for pulmonary imaging.

### References:

- Murgu SD, Colt HG, Mukai D, et al. Multimodal imaging guidance for laser ablation in tracheal stenosis. *Laryngoscope*. 2010 Sep;120 (9):1840-6.
- Hariri LP, Applegate MB, Mino-Kenudson M, et al. Volumetric optical frequency domain imaging of pulmonary pathology with precise correlation to histopathology. *Chest*. 2012 Mar 29.
- Suter MJ, Lam S, Brenner M. Optical techniques in pulmonary medicine. *SPIE photonics West. Expert Rev Respir Med*. 2012 Apr;6(2):143-5.
- Hou R, Le T, Murgu SD, et al. Recent advances in optical coherence tomography for the diagnoses of lung disorders. *Expert Rev Respir Med*. 2011 Oct;5 (5):711-24.

## Tips from the Experts

### Bronchial Thermoplasty D. Kyle Hogarth, MD, FCCP University of Chicago

**Bronchial Thermoplasty** is a minimally invasive procedure for carefully selected patients with severe, difficult to control asthma failing medical management<sup>1</sup>. The technical aspects of operating the thermoplasty catheter are straightforward and have been described<sup>1,2</sup> but there are challenges to performing thermoplasty safely and without undue patient discomfort. I suggest the following based on our center's experience:

1. Moderate conscious sedation as needed using 2 to 12mg of midazolam combined with 50mg of diphenhydramine and up to

200mcg of fentanyl. We insert the diagnostic size bronchoscope once the patient is comfortable and just barely following commands from the operator.

2. We administer 1% lidocaine to the pharynx and larynx and the airways. We typically will administer 20ml to the vocal cords, and an additional 20-30ml below the vocal cords, or more depending on coughing. We are mindful of the maximum amount of topical 1% lidocaine allowed in the airways: 4.5mg/kg total dose, not to exceed 300mg to avoid toxicity. Some centers measure out the maximum dose and dispense that amount into a labeled jar to minimize toxicity.

3. Perform the procedure using a detailed anatomic approach that has been planned out ahead of time. Thermoplasty requires sequential firing of the catheter minimizing both overlap and gaps in treatment areas. Precise understanding of the patient's airway anatomy is

therefore essential for bronchial thermoplasty. During the bronchoscopy, ask an assistant to document the lobe or segmental airway treated on your airway checklist. As the airway mucosa doesn't always have obvious changes from BT, it can be easy to get "lost" determining where one has treated. Understanding that one is currently treating RB8a1a is important if you need to disengage that particular airway and then return to finish treatment.

### References:

1. Castro M, Rubin A, Laviolette M, et al. Effectiveness and Safety of Bronchial Thermoplasty in the Treatment of Severe Asthma: A Multicenter, Randomized, Double-Blind, Sham-Controlled Clinical Trial. *Am. J. Respir. Crit. Care Med*. 2010; 181: 116-124.
2. Cox G, Thomson N, Rubin A, et al. Asthma Control during the Year after Bronchial Thermoplasty. *N Engl J Med* 2007; 356:1327-1337

## Links

[www.bronchology.com](http://www.bronchology.com)  
[www.Bronchoscopy.org](http://www.Bronchoscopy.org)

Home of the Journal of Bronchology  
International educational website for bronchoscopy training with u-tube and facebook interfaces, numerous teaching videos, and step by step testing and assessment tools

[www.chestnet.org](http://www.chestnet.org)  
[www.thoracic.org](http://www.thoracic.org)  
[www.ctsnet.org](http://www.ctsnet.org)

Interventional Chest/Diagnostic Procedures (IC/DP) Network  
American Thoracic Society  
The leading online resource of educational and scientific research information for cardiothoracic surgeons.

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# WABIP News

We are excited to announce that JOBIP has now been accepted in Index Medicus/Medline! Along with the journals Respirology and Respiration, the JOBIP is an official journal of the WABIP, and is the official journal of the AABIP.



We would like to extend our congratulations to the JOBIP editorial board and to all those consultants, advisors, authors, reviewers, and staff members who contributed to the Journal's success.

The first WABIP international Board of Regents meeting was successfully conducted via the Internet on Sunday, October 28, 2012 from Tokyo, Japan using a conference room graciously offered by Professor Ken Takamatsu MD, PhD, Dean of Toho University Faculty of Medicine. The WABIP has begun THREE important new projects to serve its members, fellow bronchoscopists, and patients around the world: an international survey of bronchoscopic practice, a set of two clinical practice guidelines, and a series of international webcasts pertaining to the acquisition and handling of small specimens for lung cancer diagnosis and molecular analysis. Treasurer, Committee chairs, and Taskforce reports were outstanding. A summary of the BOR meeting will be available on the WABIP website.



**From left to right: Administrative Executive Secretary Rod Turner with Executive Board members Henri Colt (Chairman), Teruomi Miyazawa, and Hiroaki Osada.**

# Advertising

**2<sup>nd</sup> EUROPEAN CONGRESS FOR BRONCHOLOGY AND INTERVENTIONAL PULMONOLOGY (ECBIP), APRIL 27-30, 2013, CESME-IZMIR, TURKEY**

**With the cooperation of the Turkish Respiratory Society (TRS)**

<http://www.eabip.org/>

The EUROPEAN ASSOCIATION FOR BRONCHOLOGY AND INTERVENTIONAL PULMONOLOGY (EABIP) wishes to realize a European congress focused on interventional pulmonology by gathering mainly European colleagues to facilitate in-depth discussions and collaborations in the field of IP with the intent to standardize teaching, training and practice in Europe.

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## **Train the Trainers course and Introduction to Flexible Bronchoscopy in Japan**

Date: March 15-17, 2013

Place: Terumo Medical Pranex, Kanagawa, Japan.

<http://www.terumo.co.jp/English/about/csr/feature/feature04.html>

Accommodation: Oiso Prince Hotel

<http://www.princehotels.com/en/oiso/>

Free Shuttle bus service will be provided between Oiso Prince Hotel and Terumo Medical Pranex

Train the Trainers Course

March 15-16, 2013

Number of trainees: 12

Introduction to Flexible Bronchoscopy Course March 17, 2013 Number of trainees: 30

Speakers:

Henri Colt, M.D. (California, USA), Septimiu Murgu M.D. (Chicago, USA)

Hideo Saka, M.D. (Nagoya, Japan)

Official language: English

## **APCB 2013: 5th Asia Pacific Congress on Bronchology and Interventional Pulmonology**

Date: July 12-14, 2013

Place: Coex Convention Center, Seoul, Korea

<http://www.apcb2013.org/welcome/>