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Guest Opinion/Editorial

New Immunotherapy Standards for Stage III Non-Small Cell Lung Cancer



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Immunotherapy with immune checkpoint inhibitors is the latest addition to our armamentarium against cancer. Rather than using cytotoxic compounds that kill cancer cells (and potentially damage normal tissue), immunotherapy harnesses the host's versatile immune system. The memory of activated immune cells is thought to uniquely correlate with durable responses. Immunotherapy has quickly changed the face of the management advanced non-small cell lung cancer (NSCLC), and has become a standard treatment in stage IV NSCLC with emerging data in earlier stages of NSCLC. The use of immunotherapy in stage III unresectable NSCLC has recently demonstrated improvements in survival compared to standard chemoradiation alone, with a promise of long term disease control.

Immune checkpoint inhibitors that are currently used in lung cancer target the cytotoxic T lymphocyte-associated antigen-4 (CTLA-4) and programmed death-1 (PD-1) axis. Under normal circumstances, CTLA-4 and PD-1 are regulatory systems which attenuates T cell activation to prevent autoimmunity.¹ Upon T cell receptor (TCR) engagement with an antigen presenting cell, a co-stimulatory signal from CD28 on T cells is required for activation. CTLA-4 competes with CD28 as a negative regulator, causing arrest of T cell proliferation.¹ The PD-1 axis is involved in later stages of T cell activation. Interaction of PD-1 on T cells with its ligand PD-L1, which is widely expressed in non-lymphoid tissues including tumor tissues, results in inhibition of TCR signaling and prevents cytotoxic T cell activation.¹ These systems can be utilized by cancer cells to escape immune surveillance leading to uncontrolled tumor proliferation.

Durvalumab, a human IgG1 kappa monoclonal antibody against PD-L1, is the only agent that is currently approved for the treatment of stage 3 NSCLC. In the landmark phase III study PACIFIC, 713 patients with unresectable stage 3 NSCLC, with stable or responding disease after concurrent chemoradiation, were randomized to receive 12 months of consolidation durvalumab or placebo.^{2,3} Durvalumab consolidation significantly improved overall survival (OS) compared to placebo (median OS: not reached in the durvalumab group vs. 28.7 months, HR 0.68 (95%CI 0.47-0.99)).² Median progression free survival (PFS) in the durvalumab group was more than doubled, (16.8 vs 5.6 months; HR 0.52, 95%CI 0.42-0.65).² The OS and PFS Kaplan-Meier curves demonstrated that patients benefited early from consolidation durvalumab and continued to derive benefit for the entire duration of follow up (median 25.5 months). Durvalumab was also well tolerated as consolidation therapy post chemoradiation. Importantly, the rate of severe or grade 3-4 pneumonitis was similar in durvalumab-treated patients compared to placebo (3.4% vs 2.6%).^{2,3} Consolidation durvalumab after definitive chemoradiation for unresectable stage 3 NSCLC is now a new standard of care.

Given the heterogeneity of stage III NSCLC, other potential approaches for improving outcomes with immunotherapy are under investigation. For stage III patients who are considered to have resectable disease, the role of adjuvant durvalumab remains unclear with ongoing clinical trials of adjuvant PD-1/PDL-1 inhibitors after chemotherapy. Preoperative immunotherapy is also of interest. A pilot study of preoperative immunotherapy examined the use of 2 cycles of neoadjuvant nivolumab (PD-1 inhibitor) followed by surgery.⁴ Of the 22 patients who received treatment, 45% of patients achieve a major pathologic response (MPR), $\leq 10\%$ of viable tumor cells, and 2 patients achieved a complete pathologic response, raising the possibility of using immunotherapy to downstage locally advanced disease.⁴ The subsequent phase II NEOSTAR study randomized 33 patients with resectable NSCLC to neoadjuvant nivolumab or combination nivolumab plus ipilimumab (CTLA-4 inhibitor). Preliminary data demonstrates an overall MPR of 26% (25% in the nivolumab group and 27% in the nivolumab plus ipilimumab group), further supporting a role for neoadjuvant immunotherapy for resectable NSCLC.⁵ Other clinical trials are ongoing to investigate the utility of preoperative immunotherapy with or without chemotherapy or other novel agents, and will help us define an optimal approach to those with stage III disease.

The introduction of durvalumab consolidation as a new standard in unresectable stage III NSCLC post chemoradiation is only the beginning. Greater understanding of the biology of stage III disease and the tumor immune microenvironment will help us better understand how to harness immunotherapy in this setting and to continue to increase the number of those patients with long term disease control and cure.

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Technology Corner

A Novel Electrosurgery Instrument for Central Airway Obstruction

Introduction

Electrocautery refers to the use of electricity for heating, coagulating, carbonizing and vaporizing tissues. The current follows the path of least resistance and seeks a return back to the electron reservoir. A closed circuit is required, accomplished by a grounding pad applied to the patient to allow the electrons to leave the patient's body. In general, for contact electrosurgery, high-frequency electric current is delivered through flexible or rigid probes of variable diameters. Electrons flow between the delivering probe and the target tissue. Tissue resistance to flow generates heat that results in different effects depending on the generated temperature: coagulation (>60-80oC), desiccation (>100oC), carbonization (>200oC) and vaporization (>300oC). This essay will describe the principles and potential clinical applications of a novel electrosurgery tool that integrates contact electrocautery and suctioning in a single catheter. A thorough understanding of the technical principles of this electrosurgery device, as well as clinical applications and associated risks, is necessary before using this device in routine bronchoscopic practice.

Background

CoreCath 2.7S (Medtronic Advanced Energy LLC, Portsmouth, NH) is a newly commercially available catheter specifically designed for airway use to enable coagulation, cut and suction functions in a single catheter. The catheter is a single use, not reusable sterile device with an integrated suction port to evacuate smoke. It reportedly allows for a depth of penetration of 1.65 mm on cut mode and 1.9 mm on coagulation mode. It is activated by a footswitch connected to an electrosurgical generator, and utilized in electrosurgical procedures involving removal/cutting of soft tissues (excision, incision, vaporization, ablation) while also providing electrosurgical coagulation and hemostasis (Figure 1). Similar to other thermal ablative modalities, high power settings may result in deeper tissue effects than lower power settings. The depth of effect is deeper and also increases with time if the electrodes are held stationary, with less depth of effect if the electrodes are moved over the target tissue. The catheter is being activated by a by pressing the CUT or COAG pedals on a wireless footswitch. The settings can be adjusted as needed for desired tissue effect. In general, the electrode is held on the target tissue for 2-4 seconds to achieve optimal tissue effect. It should not be activated continuously to avoid over-treatment of tissue and potentially airway wall perforation. If the effect is insufficient, the power can be increased on the generator until optimal settings are achieved. The power changes should be in increments of 5 watts in the range of 0 to 40 watts on CUT, and in increments of 5 watts in the range of 0 to 20 watts on COAG. We suggest operators use the lowest setting possible to achieve the desired tissue effect to avoid over-treatment.

Potential Clinical Applications

CoreCath is indicated for obstructions in central airways by providing electrosurgical hemostasis and suctioning of the coagulated and charred tissues. In terms of set up, like with any electrosurgery device requiring grounding, operators should assure that the area of the patient return electrode placement has adequate surface area, musculature, and vasculature for the anticipated current and duration of use. As this is a thermal ablative therapy instrument, it should not be used in cases in which the fraction of inspired oxygen (FiO₂) exceeds 40%. Although in the Instructions for Use (IFU) manual, the manufacturer states the device should be used through the flexible bronchoscope, we believe it can be safely applied through the rigid bronchoscope as well. In fact, smoke generation may still occur despite the built-in suction lumen, but in general can be managed by applying suction while using this catheter through the 2.8 mm working channel bronchoscope or by flushing the catheter. Alternatively, the CoreCath can be inserted through the rigid bronchoscope in which case the rigid suction catheter can further facilitate smoke evacuation (Figure 2). A blue visual indicator at the distal end of the device informs the user when the CoreCath has passed through the full length of the bronchoscope and is ready for activation. During the actual application, there is a need for a gentle forward advancement of the device in order to cut through the tissue. It is recommended to keep the electrode tip in motion (not just forward but also rotating movement) while activated, to avoid excessive eschar buildup. Excessive eschar buildup can compromise device performance, including reduced or clogged suction. Indeed, we found that an actual helical movement by slightly advancing and rotating the catheter may be more efficient as the suction port doesn't get obstructed by charred tissues that easily. If that happens, however, the device may be removed for cleaning to avoid having excess tissue char buildup on the electrode. This should be done by carefully pulling the catheter and remove it from the bronchoscope, followed by a gentle clean with a damp cloth or damp gauze, while

making sure not to deform the device tip. Sharp objects such as needles should not be used to clean the electrode as they could damage the device and compromise performance. After cleaning, bronchoscopists should inspect the electrode tip before using it again to assess its integrity. While not in use, it is recommended to place the electro-surgical device in a clean, dry, non-conductive and highly visible area away from the patient. This will avoid patient injury and inadvertent combustion in the procedure suite in case of accidental device activation.

In our experience with this device, the stiffness of the catheter might preclude its use in the upper lobes in some patients. One other potential concern is the lack of optimal “tactile feedback” as the catheter is advanced in the tumor for debulking. While we are not aware of adverse events to date, it is possible that the inability to feel the interface between the tumor and the normal airway wall while advancing the catheter could lead to airway perforation. In addition, we do not use this device for segmental airway obstruction. The use of CoreCath around airway stents can be useful for significant tumor or granulation but a direct contact with the stent should be avoided.

As the experience with this device is just now emerging, we suggest bronchoscopists should have alternate means for hemostasis if bleeding continues. As with other electro-surgical devices, precautions are warranted in patients with pacemakers, defibrillators or other electronic implants. The bronchoscopist should clarify with the manufacturer whether the device is contraindicated in such cases.

Conclusions

CoreCath 2.7 S is a single use electro-surgery device that integrates coagulation, cutting and suctioning and can be used during flexible and, in our experience, during rigid bronchoscopy as well. These features have the potential to make it a versatile tool in the armamentarium of devices available for treating central airway obstruction. Bronchoscopists should understand its physics principles, power settings, coagulation, cut functions and clinical applications. Device evaluation and comparative trials will need to assess safety and define the lesions that are most likely to benefit from this technology.

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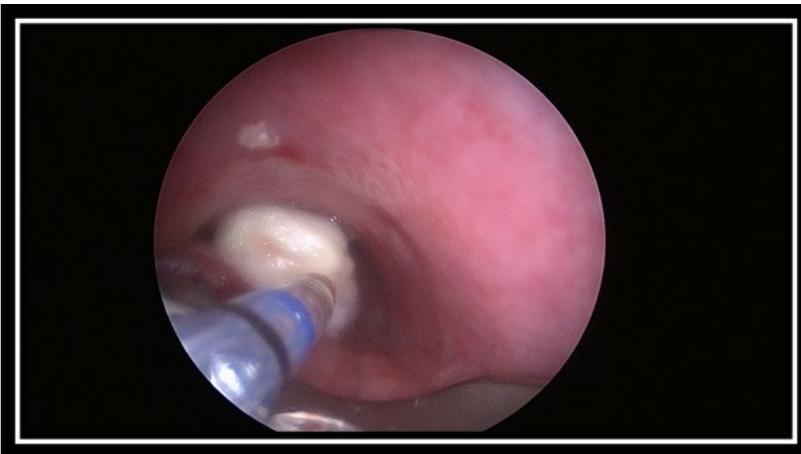


Figure 1: CoreCath 2.7 can be delivered through a flexible or rigid bronchoscope; the catheter is gradually advanced until the blue band at the distal end of the device appears on the monitor. Then the device is ready for activation. If catheter does not advance easily, bronchoscopists should rotate device slightly while advancing.



Figure 2: Top left panel: Complete distal left mainstem bronchial obstruction by tumor protruding from the left upper lobe; Top middle panel: tumor resection using the CoreCath; note the area that was just coagulated and suctioned out by the CoreCath (blue arrow). Top right panel: note the three areas post CoreCath resection (blue arrows); Bottom left panel: partial tumor resection allowed insertion of the rigid suction catheter and aspiration of secretions from the left lower lobe; Bottom right panel: patency to the left lower lobe is restored.

Management of Primary Spontaneous Pneumothorax



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Definitions and Epidemiology

All pneumothoraces are not created equally and the differences are important as they inform further management strategies. Of the three categories (spontaneous, traumatic, and iatrogenic), management for spontaneous pneumothoraces requires the most thought. This category can be primary (no preceding trauma or underlying precipitating cause such as lung disease) or secondary (occurs in patients with underlying structural lung diseases). I will be focusing on primary spontaneous pneumothorax (PSP) which seems to have the most unique features and cause for debate.

While the exact incidence is not known, PSP occurred in approximately 18 per 100,000 males and 6 per 100,000 females among a population around Stockholm, Sweden from 1975 to 1984.¹ It is most common in males aged 15-34 who are tall and thin. However, the strongest risk factor is smoking (tobacco or cannabis).^{1,2} As sub clinical emphysema-like changes (ELCs) have been reported in up to 80% of patients with PSP, bleb rupture along the visceral pleura is a popular theory for the pathogenesis of PSP. However, other theories like visceral pleural porosity have been proposed, so the exact cause of air leakage in PSP is not entirely clear.

Management of the first episode of PSP

One thing that is agreed upon is that patients with this disorder rarely present with tension physiology or respiratory distress unlike those with secondary spontaneous pneumothoraces (SSPs) who have less pulmonary reserve. Even though most patients with PSP present with an abrupt onset of pleuritic chest pain with or without breathlessness, many patients will have minimal to no symptoms. The British Thoracic Society (BTS) Guidelines from 2010 remind us that we have time and we should adopt a more conservative approach with greater reliance on clinical symptoms to dictate management and minimize painful procedures when possible. In contrast, the earlier American College of Chest Physicians (ACCP) guidelines from 2001 recommended tube thoracostomy for any pneumothorax greater than 20% of the hemi thorax regardless of symptoms.

Simple aspiration without tube thoracostomy can be very successful in treating the first episode of PSP that is large or causing symptoms, so much so, that simple aspiration is recommended up to 2.5 liters of air, at which point, conversion to tube thoracostomy is recommended.³ The procedure is easily accomplished by inserting a 16 to 18 gauge angiocatheter typically into the second intercostal space, mid clavicular line and connecting to a 3-way stop cock for evacuating pleural air with a large syringe. This strategy has been shown to decrease the need for hospitalization. Considering the litany of user friendly small bore thoracostomy tubes on the market, one could argue that an eight french pleural drain could be used first line as well as simple aspiration. It should not add significant discomfort and could prevent the need for a second procedure if simple aspiration fails (i.e., air leak persists even after 2.5 liters is aspirated). If the air leak resolves and follow up imaging shows lung re-expansion, then the patient may be discharged the same day without need for hospitalization. Simple aspiration for PSP fails 25-50% of the time and there is no evidence to support a second aspiration rather than chest drain insertion. Alternatively, discharge with a one-way Heimlich valve attached to the chest drain is another option to prevent hospitalization.⁴ Local equipment, patient and facility logistics, and expertise play a role in choosing among these options.

Prevention and Management of PSP recurrence

After treatment of PSP, patients want to know the next step and what can be done to keep it from happening again. Unfortunately, in the absence of a large body of evidence, this topic is one for debate. It should be considered that the recurrence rate for PSP is less than that of secondary spontaneous pneumothoraces (30% vs. 50%, respectively) and patients will generally tolerate recurrent PSP more favorably with less risk of pulmonary decompensation than patients with SSP. So, unless the patient engages in high risk professions (e.g., scuba diving, aircraft personnel), has a persistent air leak for longer than 3 to 5 days, has a hemopneumothorax, or has bilateral pneumothoraces, a preventative pleurodesis procedure can be delayed after the first episode of PSP. Surgical management (bleb or bullectomy with partial or complete pleurectomy and mechanical or chemical pleurodesis) has reportedly lowest rate of recurrence (<5%) and should be considered for the first recurrence of PSP since a second recurrence can be expected approximately 60% of the time.^{4,5} Figures 1 and 2 are images from a 17 year old male student who developed an abrupt onset of chest pain without breathlessness while walking to class. The case highlights the benefit of a multidisciplinary approach of pulmonologist recognizing a primary spontaneous hemopneumothorax and treating with tube thoracostomy due to blood in the pleural space. Subsequently, a thoracic surgeon was consulted due to the hemopneumothorax and the patient was taken for successful video assisted thoracoscopic surgery (VATS) with bleb resection and mechanical pleurodesis.

A more complicated issue is the management of recurrent PSP after mechanical pleurodesis. Repeat VATS would be indicated for a completely failed pleurodesis (when a sizable pneumothorax is clearly identified). However, on occasion, these patients have small, loculated recurrent pneumothoraces that are not easily accessible to drain but yet are responsible for recurrent chest pain. Pain medication, reassurance and monitoring may be the most reasonable approach in these scenarios.

In conclusion, the literature supports simple aspiration in symptomatic individuals with a first presentation of PSP. Other management considerations may include small bore chest drains and consideration for the use of Heimlich valves. In high risk groups at first presentation or in patients with recurrent PSP, definitive management with a thoracoscopic pleurodesis procedure should be pursued. As chest physicians, we should also counsel patients on the need for smoking cessation to reduce the chance of PSP recurrence.

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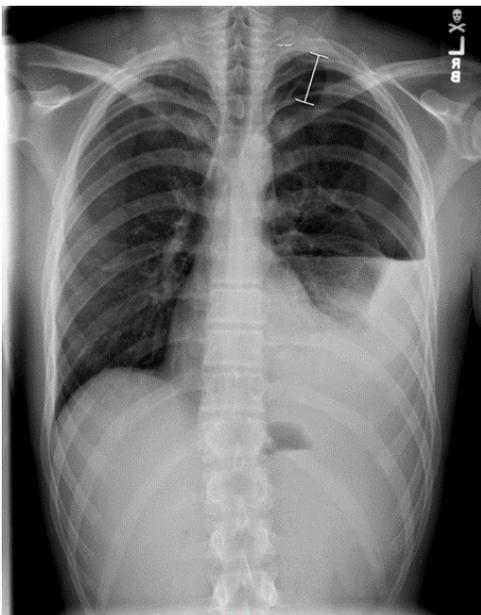


Figure 1: While a conservative approach is generally favored for the first PSP, cases like this of hemopneumothorax (thought to be due to bleeding from small vessels associated with sub pleural blebs that rupture) can be considered for surgical management of the first event.

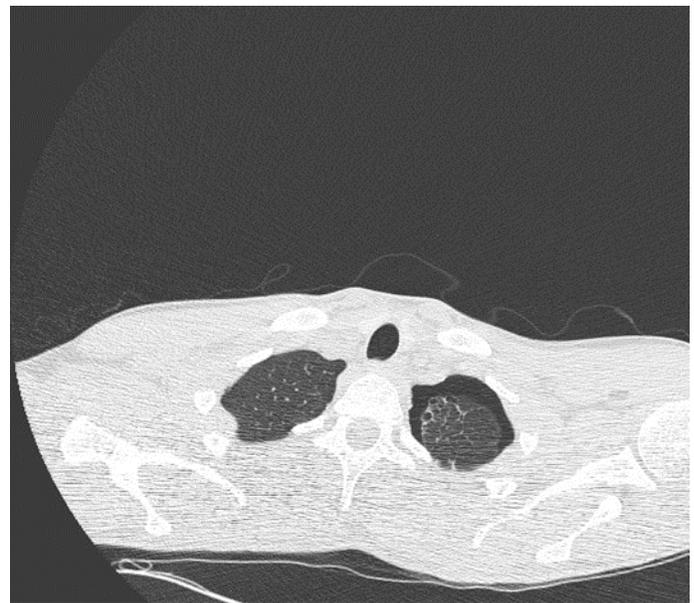


Figure 2: CT scan of the chest on the same patient with PSP showing sub pleural emphysema like changes at the left lung apex

Humanitarian News

The Ethics of Migration

Ethical questions regarding human migration are a topic of hot public debate, particularly in recent years. The consequences of human migration have received much attention in political theory, international law, international relations theory and international human rights discussions. However, most of those discussions are based on the economic impact and the legal status of immigrants. But the essential point is how to define an ethics of immigration, to define what is morally right and wrong, and not just about what is efficient or good for some segment of the population. The justification of whichever the migration policies chosen by any country should be based on moral grounds.

The term “migrant” refers to anyone living or working outside their home countries, from low-wage workers to very wealthy expatriates. A United Nations report states that the number of international migrants reached 244 million in 2015, with approximately 20 million being refugees and the rest considered as economic migrants. Although migrant workers are vital to a country's economy, many of them, especially low-wage laborers, generally have limited rights in their receiving countries and are vulnerable to discrimination and abuse.

Migration is the basic story of the human race from its origins to the present. People have always moved, in search of food or escaping from the dangers of the war. Or simply looking for better opportunities for their families. Almost every single human being all over the world is a descendent of a migrant. Some scientists estimate that the migration could have begun as early as 100,000 years ago and that contact with more archaic populations like the Neanderthals could have produced changes in what became the modern humans. But beyond some academic differences between scholars, no scientists have disputed that ancestors of the human species (all of us) originated in Africa.

Human migrations have transformed completely the lands themselves and mainly the racial, ethnic, and linguistic nature of their populations. Europe, is the product of several early migrations as diverse as the Germanic peoples, the Slavs, and the Turks. The Americas, Australia, Oceania, the northern half of Asia, and some regions of Africa have been quite recently colonized by European migrants. The total number of Europeans reaching the United States amounted to 37 million between 1820 and 1980 and currently over 20% of Canada's population is made up of immigrants.

In the current world, 3.2% of the world's population are international migrants. Migrants are an heterogeneous population: refugees escaping from persecution, persons displaced by environmental factors, people seeking for employment and even retired persons looking for cheaper locations and better climate. The percentage has remained stable for years, and curiously, emerging economies (Brazil, India, China) and oil-producing countries are now receiving the majority of migration, that consequently takes place mainly towards the Southern hemisphere. In spite of those uncontroversial facts, states in the Northern hemisphere are disproportionately concerned by a fear of "invasion" by poor migrants from the South.

As a result of ever-increasing controls on migration, the vulnerability of migrant persons to violations of their human rights is increasingly exacerbated.

Migration that happens through visa categories tends to fall into three general categories: family migration, employment-based migration, and humanitarian migration. All migration is however to some extent underlined by economics, because restrictions to migration, specifically in wealthy states, operate privileging the few and the wealthy, restricting the many and the poor. In many industrialized states, a family-based petition is required to show proof of income. Student visas require the applicant to prove they have sufficient funds to live in the host country. On the other hand, the world's leading experts,

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elite sport men and women, highly qualified artists or intellectuals and the super-talented are selected as the “winners” of the prize of citizenship and wealthy countries compete to attract them. Like it or not, global inequality is at the heart of the debate of the ethics of international migration. We have to admit that it would be the height of hypocrisy to deny that the problem are not immigrants but poor immigrants. The wealthy and/or politically powerful immigrants are always welcome in most of the societies.

Interestingly, migration is generally viewed as an individual choice, without taking into account that most of the times, factors out of the individual control, such as loss of land, natural or man-made disasters, political instability, poverty and mainly economic and political policies and actions of the local government, neighboring governments, or super-powers may create an effect that results in forced decisions to migrate that are far from the individual choice of the migrant.

One of the most used moral argument to support limits on immigration assumes that any country has a limited pool of goods, that if they are allowed to be consumed by immigrants from developing countries will be less available for citizens. It is argued that immigrants are usually ready to work for less than citizens, decreasing wages in the labour market. Or that immigrants use government services as education and health care that are supported by citizen taxes. From that point of view, nations would have the moral right to exclude immigrants because they harm citizens.

Although popular, those assertions are simply false. The quantity of goods a nation produces is not fixed and usually, the larger a nation's labor pool, the greater its productive potential. Immigrants add to a nation's labor pool, and they increase the nation's productive potential, increasing the available goods. Additionally, when immigrants turn into workers, they also turn into new consumers and they contribute to the growing of economy.

On the other hand, most of the times, immigrants do not use government services in a significant degree. In most of the countries, in order to access to social services provided by government, people have to pay the same income and social security taxes that citizens pay to support these services. In fact, in most of the wealthy economies immigrants subsidize healthcare for locally born individuals by paying in more to the system than they withdraw as in most of the host countries immigrants use far less healthcare resources than persons born there. A recent study has found that immigrants make up 12% of the population, but only account for 8.6% of total U.S. healthcare spending. (Flavin, L., Zallman, L., McCormick, D., & Wesley Boyd, J. (2018). *Medical Expenditures on and by Immigrant Populations in the United States: A Systematic Review. International Journal of Health Services, 48(4), 601–621*).

But even in countries with a wide and easy access to government services, where an undocumented immigrant can get access to services as education and healthcare, the proportion of the “burden” of immigrant use is not really relevant as they usually do not represent more than a small proportion of users. Inequalities in accessing health services for undocumented or irregular migrants are not only based on poverty, they are also due to language, costs, location, information, or fear of refusal, all reasons that create what has been called the “Exhausted Migrant Effect” (Domnich A, Panatto D, Gasparini R, Amicizia D. *The “healthy immigrant” effect: does it exist in Europe today? Ital J Public Health. 2012;9:1–7*). Additionally, following some perverse Darwinian logics of migration, the disparity in healthcare spending may be also due to a “healthy immigrant effect,” meaning that recent immigrants tend to be young and robust when they arrive. Currently, undocumented immigrants account for 1.4 percent of total medical expenditures in the U.S. even though they make up five percent of the population and in the UK, ‘health tourism’ (people that come to the United Kingdom with the express intent of using health services to which they were not entitled), was estimated to cost only £60 million of the annual NHS budget of £113 billion (*The King’s Fund Report*).

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In general, most of the studies sustain that the economic costs of immigration are counter-balanced by the less obvious benefits of job creation, expanding productivity, and added tax revenue.

Unfortunately, many times the real reason of public concerns about immigrants is covert racism. Immigrants speak a different language; their skin color is different; they have a different culture and behave differently. And many citizens just do not want to live side by side with people who are different.

For the medical community, the most specific topic requiring moral discussion is the access to health care. The United Nations Commission on Human Rights resolution 2000/48 affirms that “every State party to the International Covenant on Economic, Social and Cultural Rights must undertake to guarantee that the rights enunciated in that Covenant will be exercised without discrimination of any kind, including on the basis of national origin”.

Many countries have or are studying to create laws in order to restrict the free access of certain groups of migrants to the medical treatment provided by the government services. The central question is if this discrimination can be supported on ethical terms, and which would be the moral argument to justify those decisions.

There is an increasing body of ethical literature that questions the usual view that accepts that every state or nation has the right to decide who can inhabit or not in that particular country. National borders are morally quite arbitrary as they usually are the result of war, geography or discovery; and they may even change during a single individual life-time. From a liberal point of view, national borders do not bear much moral weight. Going even further (although knowing that it is very controversial point of view and quite contradictory to the ordinary “common sense”) Joe Carens (a professor for the Department of Political Science at the University of Toronto) in his last very awarded book “The Ethics of Immigration” argues for open borders. He supports the idea that restrictions on immigration are ultimately a way of protecting privilege and that our current society resembles too much a model everybody thinks is wrong, like the feudalism was. The rich countries are like the few limited members of nobility were in the feudal system and the vast majority of people in the world who live elsewhere, are poor and impoverished like the peasants in the serfdom times.

Given the obvious artificiality of states and the historically arbitrary and morally dubious ways in which those states came to have their boundaries, many scholars of international law and human rights are tempted to wish those borders away in favor of a universal human community of individuals. However, there is a history behind the current arrangement of state nations as the result from the wars of 16th- and 17th-century Europe, all based on the intention of re-imposing a universal and “correct” order on the religiously broken post-Reformation world. And that is not going to be changed so easily.

Consequently, that is a difficult position to be accepted for many citizens all over the world. But it clearly shows the contradictions of our ethical foundations. We members of “civilized”, liberal democratic nations are supposedly committed to freedom as a basic human right, but then we keep people from freely moving. Probably, what this discussion about borders stresses, is mainly that the solution is not to get everybody moving from countries in despair to wealthy countries, but to transform the conditions for that people not to feel compelled to move. And to accept the search of that achievement as a moral global responsibility. In Carens words, open borders is not a goal in itself, is not a policy proposal (it is not practical and it is probably not acceptable nowadays). The main goal is to work towards creating a world where open borders can exist.

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The point is that if we want to keep in the liberal philosophy, finding moral basis for restrictions to non-citizens is a very difficult task. On a classical liberal theory, the difference between a world of liberal communities and a world liberal community is not of fundamental importance. Since the aim of government in a community is to assure the basic liberty and property rights of its citizens, borders are not of great moral significance in classical liberalism. Taking that into account, as recently stated by Phillip Cole (from Middlesex University) finding reasons to restriction of welfare for non-members of a society would require to adopt versions of liberal communitarianism (more than the classical liberal views) that fix on the nation as having moral value, and justify practices of discrimination between members and non-members. It means that is the particular community and not humanity or personhood in general, which gives rise to one's strongest moral duties. It requires to accept that the principle of community outweighs the principle of humanity. A difficult principle to accept for most of scholars and for ordinary people.

Many argue that the reason that support rights to welfare is the contribution to the economic through work and taxation. However, even if it is supposed that members of a nation have made these contributions (which is not always true), in a globalised world economy, the idea that citizens of a nation state are the only ones who contribute to the economic prosperity of that state, is difficult to sustain. And at the same time, many citizens make little or no economic contribution and many migrants do (as they work and pay taxes).

We may want instead to argue that the other liberal states should take care of their own citizens, but in that case we should accept that these other states are of no moral concern to us. What is a problem. Because it cannot be sustained without abandoning the classical commitment to universalism of the liberal theory.

After analyzing all these failing ethical justifications, Phillip Cole (*Cole P Human rights and the national interest: migrants, healthcare and social justice Journal of Medical Ethics 2007;33:269-272*), finds only one option for accepting the discrimination between members and non-members without abandoning the liberal political theory. He calls that option "liberal realism". That is a concept coming from international relations theory which considers the international order as dangerously anarchic and, consequently, supports that the only rational approach for nation states is to defend their self-interest. It resembles the Hobbesian view of the international order, as a dangerous "natural condition" in which other states are potential threats and it gives right to stop morality at the national border. Obviously this approach denies any possibility of global social justice.

Accepting liberal realism means accepting that liberal institutions included the welfare system must be protected by illiberal practices, just protecting the national interest without any other ethical concerns. It means accepting that a liberal democracy cannot sustain liberal institutions without restricting membership and access. It does not require an ethically grounded distinction between citizens and migrants, it does not justify these decisions ethically but just accept this necessary discrimination on practicalities. A principle difficult to harmonize with John Rawls' Second Principle of Justice of his *A Theory of Justice*, that "social and economic inequalities are to be arranged so that they are to be of greatest benefit to the least-advantaged members of society". Although it is true that in his late works, this icon of the philosophy in the liberal tradition became himself quite restrictive about the application of his principles globally, surprising many of his fellow egalitarian liberals.

The truth is that most of ethical theory, still think that there is no way of finding a moral argument for restricting migrant access to the welfare system, and that this is a profoundly amoral decision. Accepting this "liberal realism" may mean going as far as accepting the idea that international human rights and the question of global justice have no place within liberal

Humanitarian News

political theory, and that the defense of liberal institutions by liberal nation states is based only on the fact that they are their institutions and not because those who choose to support them are liberal individuals. They just defend institutions that benefit themselves, not necessarily following a certain ethical justification. Those implications (following Cole) show liberal realism as “a shallow and brutal philosophy”.

The ethical foundations of migrant policies concern to all the health care workers. No full agreement is going to be found soon. But, definitely, what health care workers cannot help is to avoid the point. We have to study the practical implications based on facts and not undocumented beliefs and we have to make a choice about our ethical position regarding to the policies we want our government to adopt. We cannot just ignore the topic, as it is, no doubt, absolutely “in our lane”.



*The views expressed in this article are those of the author and do not necessarily reflect the official positions of the Executive Board or International Board of Regents of the WABIP. Dr. Silvia Quadrelli is Vice-chair of the WABIP.

Education and Training



Figure 1: Congratulations to everyone who participated in the Train-the-Trainer and introduction to Flexible Bronchoscopy course held in Buenos Aires, Argentina, 2018.

Another generation of South American leaders, Buenos Aires, 2018

It's always exciting when a new generation of physicians takes on leadership roles. That is what I saw in Buenos Aires in December, 2018. This train the trainer program included physician-leaders from Argentina, Chile, Peru and Uruguay. The course was led by Dr. Hernan Iannella and Dr. Iris Boyeras from Buenos Aires, coached by veteran Master Instructor Patricia Vujacich, ending with a fantastic Introduction to Flexible Bronchoscopy program held at the Pediatric Society building in Argentina's capital city. The Argentine group has incorporated Bronchoscopy Education Project materials (assessment tools, checklists, step-by-step, practical approach exercises) in their yearly bronchoscopy certification course since 2009. Also, I can not thank enough my Argentine friends and senior instructors Artemio Garcia, Silvia Quadrelli, Patricia Vujacich, Pedro Grynblat, Ricardo Isidoro, Fernando Galindez, and Hector Difranchi who contributed so very much to the development and eventual distribution of teaching materials, including The Essential Bronchoscopist series of books around the world!

Participants in the Buenos Aires program enthusiastically attacked case-based Practical Approach exercises and Informed Consent role-playing scenarios, incorporating newly learned technique of coaching into their teaching sessions. It is noteworthy that this was the first generation of future instructors who have already been totally trained using bronchoscopy education project materials during the course of the pulmonary training. Ample time was provided, therefore, for mastering Bronchoscopy Step-by-step teaching methodology, and for practicing how to incorporate assessment tools such as the Bronchoscopy Skills and Tasks Assessment Tool (BSTAT) and checklists into daily teaching. Several sessions focused on exchanging viewpoints about teaching, reflecting on one's own teaching and learning techniques, and discussing how clinical service (day to day patient care) can be separated from focused teaching in order to teach more effectively and efficiently. The group unanimously believed that patients must be spared from being used for practice, and all believed that in today's day and age, models, rather than patient or animals should be used for procedural-based education.

It is noteworthy that all teaching materials are available in Spanish, and can be downloaded from the Bronchoscopy International website at www.Bronchoscopy.org. Once more, Bronchoscopy International faculty partnered with the World Association for Bronchology and Interventional Pulmonology to conduct a state of the art educational program with long-lasting impact. A special thank you goes to Hernan Iannella, who has diligently help perfect the Spanish translations of teaching materials, and to Chilean thoracic surgeon and next president (host) David

Education and Training

Lazo, who plans to incorporate Bronchoscopy Education Project materials in courses promoted during the next South American Association's regional bronchology meeting in 2020.

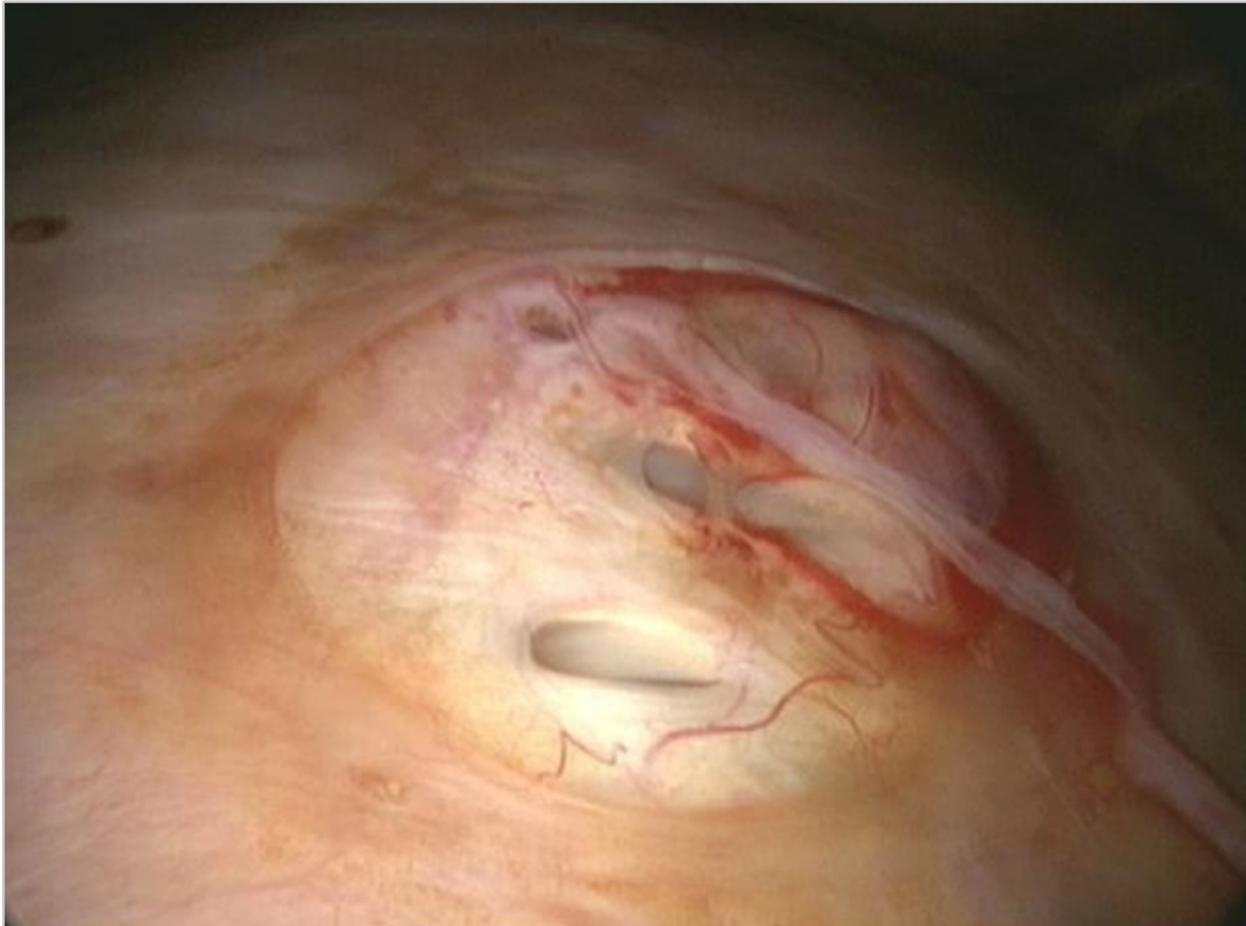
December marked the last of 2018's Train-the-Trainer programs. While several other educational programs are scheduled for 2019, only one (Algeria) is a Train-the-Trainer. Needs assessments have identified a need and desire for programs in Africa, the Middle East, and Eastern Europe. Please contact Michael Mendoza or Henri Colt to discuss scheduling for 2020, and keep checking the Bronchoscopy International and WA-BIP websites for new educational materials and announcements.



Figure 1 A: Physician trainers in Buenos Aires working on a case-based Practical Approach exercise in Buenos Aires, Argentina. **Figure 1 B:** Students learning Step-by-Step using the TruCorp airway model and Olympus videobronchoscope. **Figure 1 C:** Trainers conducting an Informed Consent Role-Playing exercise.

Best Image Contest

We are most grateful to have received over 150 images for participation in this Image Contest. After a thorough review of all images by the WABIP Academy Image Library Editors, we are proud to announce and show the first of three best images from the contest. The remaining best images will be released in the next two issues of the Newsletter.



Description: Refractory hydrothorax appears when there is no response to salt restriction, diuretics and paracentesis and its management is not well established. Videothoracoscopy is a promising therapy that permits the detection and closure of diaphragmatic defects, and when used with talc pleurodesis resulted in long-lasting control.

Contributor: Salvato Feijó, M.D. (France)

WABIP Member Society: Groupe d'Endoscopie de Langue Française

Annual Board of Regents Meeting 2019

As the new business year is upon us, WABIP Regents (member society representatives) shall meet and vote on WABIP activity and financial reports for our annual filings as a non-profit organization in Japan. The meeting shall take place in the Gold Coast, Australia at the Asia Pacific Congress for Bronchology on March 29, 2019 (website: www.apcb2019.com). Regents who cannot be in attendance at the APCB shall be provided the documents for review and voting via online ballot.



WABIP Visiting Scholar Travel Grant Recipients 2019

After receiving over a dozen of highly qualified applications, we have finally narrowed down the candidates to two final recipients. We are proud to announce two WABIP Visiting Scholar Travel Grant recipients, which will go to Dr. Desh Deepak (India) and Dr. Mia Elhidsi (Indonesia). Dr. Deepak shall be travelling to Maryland, USA and conduct a 3 week observership program under supervisor Dr. Joseph S. Friedberg. Dr. Elhidsi shall undergo her observership in Marseille, France under supervisor Dr. Hervé Dutau. Their learning experiences shall be included in future WABIP Newsletter issues.



Desh Deepak, M.D.



Mia Elhidsi, M.D.

New Member Societies

We are delighted to announce two new member societies: Senegal Bronchology Association and the Ghana Thoracic Society. The two societies are represented by Prof. Khady Thiam (Dakar, Sénégal) and Dr. Jane Sandra Afriyie-Mensah (Accra, Ghana), respectively.



As a truly international organization, the WABIP is proud to continue promoting global unity in interventional pulmonology. As of January 2019, the WABIP consists of over 8,600 members representing 60+ countries and five regions of the world.



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Research

The Holy Grail?

The desire to reach smaller and peripheral pulmonary nodules continues to grow stronger as the screening for lung cancer becomes more prevalent. After which, the natural next step would be the ability to ablate/treat them. Currently, there are several limitations in reaching small and peripheral lesions; including the size of the bronchoscope, availability or lack thereof a guidance or navigation system and confirmatory technology that would work with smaller scopes. Current navigation systems have improved the yield of transbronchial biopsies to a great extent, However, among other issues, the human factor/operator's skill and instrument size pose some limitations.

Recently, innovative robotic bronchoscopic systems with built-in navigation and sensor technology and constant tracking of the micro-instruments may provide even more accuracy and consistency in higher yield. These devices are operated from a video-game like a console once the scope is in the airway. The systems are equipped with sophisticated pressure/resistance feedback system similar to human tactile feedback for easy navigation. The intuitive and user-friendly interface makes the operation of this device simple and fun. Robotic bronchoscopy is done under general anesthesia via an endotracheal tube. The robotic scope is threaded into the endotracheal tube. The working channel of the bronchoscope allows for suction and flexible micro-instruments to pass. The built-in navigation system of the robotic bronchoscope allows for precise localization of the target. Once the scope is in the endotracheal tube, it can be controlled with a joystick or a mouse like control to drive the bronchoscope in the airway. Sophisticated software allows the robotic scope to make sharp turns and negotiate difficult contours of the airways precisely. Recently, some early data has been published for two robotic bronchoscopy systems: these two systems.

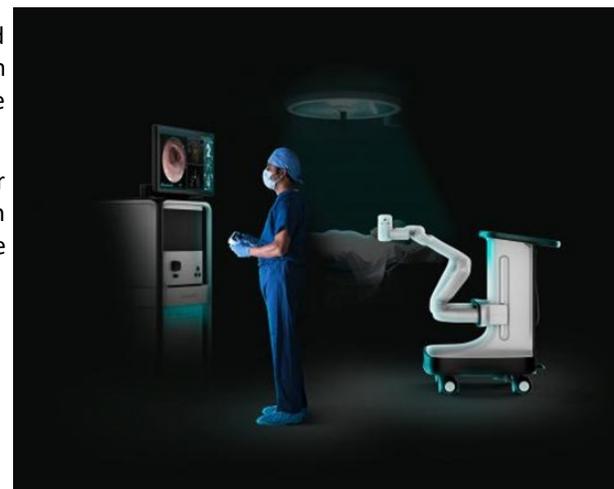
One of the studies with the Monarch system suggests (1) high success rate for obtaining successful biopsies and minimal complications. In this study the system worked efficiently and effectively.

Another study (2) of robotic bronchoscopy system made by Intuitive Surgical was tested in its first human study in Australia on 30 patients'. The diagnostic yield with this system was 83% for all lesions and 89% for malignant lesions. The system appeared to be efficient and safe.

Robotic bronchoscopy is yet another step towards our sincere desire to serve our patients with pulmonary nodules better and quicker. With the advent of such technologies, we seem to be getting closer to our long-standing desire to ablate malignant pulmonary lesions in patients who can't tolerate surgical interventions.

References:

1. Rojas-Solano JR et al.; J Bronchology Interv Pulmonol. 2018 Jul;25(3):168-175.
2. Fielding D et al.; CHEST 2017 Oct; 152,(4) Supplement A858 - Abstract of oral presentation



WABIP ACADEMY- WEBCASTS

The WABIP has started a new education project recently: *THE WABIP ACADEMY*. The WABIP Academy will provide free online webcasts with new and hot topics that will interest pulmonologists and interventionalists.

Current webcast topic: **Tissue acquisition for biomarker directed therapy of NSCLC**

Webcast

Small Sample Tissue Acquisition and Processing for Diagnosis and Biomarker-driven Therapy of NSCLC

Welcome to WABIP's free online learning tool to increase knowledge regarding the appropriate selection, acquisition, and processing of cytology and histology samples from patients with known or suspected lung cancer.

Click an icon to begin



Program Description



Purpose



General Learning Objectives



Specific Learning Objectives

[TABLE OF CONTENTS >](#)

Each fictitious clinical case scenario is based on a conglomerate of real patient data. Cases have been modified to avoid any possibility for patient identification and to help meet educational objectives. Any resemblance to real persons, living or deceased, is purely coincidental.

The content for these webcasts has been developed by members of the World Association for Bronchology and Interventional Pulmonology. All content was reviewed by an independent multidisciplinary team of experts. Unless otherwise specified, all content is the property of WABIP.

A collaborative project with Pfizer Oncology

[Credits >](#)



You can reach these webcasts by using this link: <http://www.wabipacademy.com/webcast/>

Links

www.bronchology.com	Home of the Journal of Bronchology	www.chestnet.org	Interventional Chest/Diagnostic Procedures (IC/DP) NetWork
www.bronchoscopy.org	International educational website for bronchoscopy training with u-tube and facebook interfaces, numerous teaching videos, and step by step testing and assessment tools	www.thoracic.org	American Thoracic Society
www.aabronchology.org	American Association for Bronchology and Interventional Pulmonology (AABIP)	www.ctsnet.org	The leading online resource of educational and scientific research information for cardiothoracic surgeons.
www.eabip.org	European Association for Bronchology and Interventional Pulmonology	www.jrs.or.jp	The Japanese Respiratory Society
		sites.google.com/site/asendoscopiarespiratoria/	Asociación Sudamericana de Endoscopia Respiratoria

UPCOMING EVENTS

BRONCOCON 2019

- When: February 8-10, 2019
- Where: SGPGI, Lucknow, India
- Program Director: Dr. AJMAL KHAN
- Program Type: Educational seminar (postgraduate may include physicians in practice and trainees), Hands-on workshop, Conference (didactic lectures)
- Website: <http://www.broncocon2019.com>

Basic & Advanced Diagnostic Flexible Bronchoscopy Course

- When: March 21-22, 2019
- Where: Steigenberger Hotel -El Tahrir, Cairo
- Program Director: Prof. Emad Korraa, MD
- Program Type: Hands-on workshop, didactic lectures

8th Asian Pacific Congress on Bronchology and Interventional Pulmonology (APCB)

- When: March 27-30, 2019
- Where: Gold Coast Convention and Exhibition Centre, Broadbeach QLD 4218, Australia
- Program Director: David Fielding, M.D.
- Program Type: Hands-on workshop, Conference (didactic lectures)
- Website: <http://www.apcb2019.com>

Advanced Diagnostic Bronchoscopy Workshop

- When: March 29-30, 2019
- Where: Eden Roc Hotel, Miami Beach Florida
- Program Director: Atul C. Mehta, MD
- Program Type: Hands-on workshop, didactic lectures
- Website: <http://www.clevelandclinicmeded.com/live/courses/bronch/default.asp>

60th International Conference of the Egyptian Society of Chest Diseases and Tuberculosis

- When: April 2-5, 2019
- Where: Hilton Heliopolis Hotel, Cairo, Egypt
- Program Director: Prof. Mohamed Awad Tageldin, Prof. Gehan Ellassal
- Program Type: Educational seminar (postgraduate may include physicians in practice and trainees), Educational seminar (for trainees only)
- Conference (didactic lectures)
- Website: <http://www.egyptsct.com>

5th European Congress for Bronchology and Interventional Pulmonology (ECBIP)

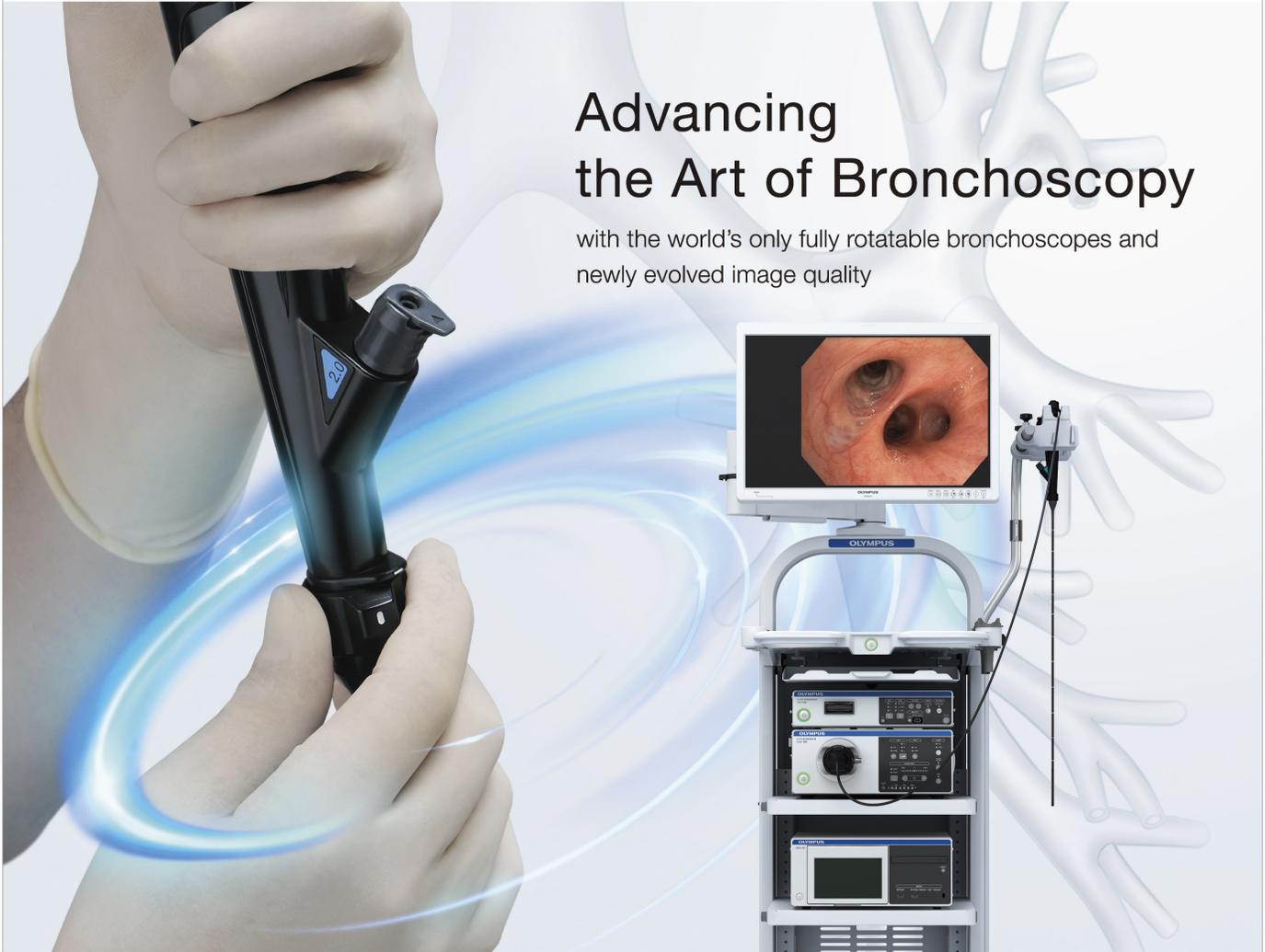
- When: May 8-11, 2019
- Where: Dubrovnik, Croatia
- President: Prof. Dr. Mihovil Roglić
- Program Type: Conference (didactic lectures)
- Website: <http://ecbip2019.eu>

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