

Abstract

From a Surgeon to an Artist

Anthony P C Yim, MD

The speaker will share with his audience in public for the first time his transformation from a thoracic surgeon to an artist, what he has learned in the process, and how others could benefit from his experience.

We live in an uncertain, fast changing world. Embracing life with grace, i.e. being grateful for what we have at all times is not only an important virtue, but also an essential ingredient in cultivating the right mindset that would help us out of the difficult times we might encounter in life. The same mindset will also make us more compassionate doctors, better persons and happier versions of ourselves.

Management of Multiple Ground-Glass Opacities: Observe or Resect?

Over the past two decades, low-dose computed tomography (LDCT) has revolutionized the field of lung cancer screening worldwide. Recently, the TALENT study has revealed a high invasive lung cancer detection rate at 1 year after baseline LDCT scan. Along with the popularity of LDCT screening, an increasing number of lung ground-glass opacity (GGO) lesions are detected. Therefore, management of GGO has become an important issue in the field of thoracic surgery.

Although GGO is a nonspecific radiologic finding, the persistent GGO is more likely to be malignant. The natural history of GGOs has been gradually clarified. Nearly 20% of pure GGOs and 40% of part-solid GGOs gradually grow or increase their solid component, whereas others remain unchanged for years. Pathologically, GGO can be benign lesions (including focal interstitial fibrosis, inflammation, and hemorrhage) and malignancies (preinvasive and invasive lung adenocarcinoma). Several studies revealed that pathologically non-lepidic growth patterns can also present as GGO components on CT images.

Consolidation-to-tumor ratio (CTR), defined as the ratio of solid portion size to total size in the lung window, is now well recognized as an important factor to predict invasiveness of GGO lesions. National Comprehensive Cancer Network guidelines recommend that limited resection is appropriate for peripheral GGO lesions with size less than or equal to 2 cm and greater than or equal to 50% ground-glass appearance.

Regarding the managements, some proposed that for persistent small GGO lesions, patient age and nodule location should be taken into consideration when deciding whether to perform surgical intervention actively. For young patients with peripheral GGO lesions that can be completely resected by sublobar resection, early intervention is recommended. For centrally located small GGO lesions that require lobectomy or elderly patients who have short life expectancy, follow-up is recommended. As for follow-up duration, a 3-year observation period is a reasonable benchmark for follow-up.

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Abstract

Title:

Management of Early Lung Cancer:

Result and Challenge of National Lung Cancer Screening – Clinical Experience of Chung Shan Medical University Hospital

Abstract

Based on findings from Taiwan Lung Cancer Screening in Smoker Trail (TALENT) study, there was an approximate 2.6% detection rate for lung cancer in Taiwan. Therefore, low-dose CT screening protocol for lung cancer by Health Promotion Administration (HPA) started since July 2022. In the first year, more than fifty-thousand cases had been completed in this protocol and the overall detection rate were about 1.1% for lung cancer, including 85% for early stage (0 and 1). However, there were still challenge in the clinical practice due to discrepancy for interpretation of results between radiologists, chest physicians, thoracic surgeons and pathologist. Today we will share the experience and preliminary results, and discuss about the challenge of low-dose CT screening protocol for lung cancer in our hospital, focusing on the image interpretation, strategy of management and prospect in the future.

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Abstract

Title:

Single-Incision Thoracoscopic/Robotic Surgery in Changhua Christian Hospital

Speaker: Bing Yen Wang

Organization/Institute: Changhua Christian Hospital, Taiwan

Abstract

With the advancement of surgical techniques and medical equipment, the application of single-incision thoracoscopic surgery has become increasingly widespread. Since 2016, Changhua Christian Hospital has routinely performed single-incision thoracoscopic surgeries. With the introduction of 3D flexible endoscopes, our hospital has adopted this technology for thoracoscopic procedures. Compared to the traditional 30-degree 2D thoracoscope, the 3D flexible endoscope allows for more precise movements and shorter surgery times.

In 2018, our hospital established a hybrid operating room and simultaneously introduced image-guided surgery in thoracic surgery. Image guidance has significantly reduced surgical waiting times and effectively improved the surgical margins in segmentectomy procedures. In 2020, we introduced the Ziosoft 3D imaging reconstruction system, enhancing the precision of preoperative planning for thoracoscopic surgeries.

Last year, our hospital introduced the Da Vinci Xi Robotic Surgical system and began using it for single-port robot-assisted segmentectomy and lobectomy. We look forward to further advancing thoracic surgery with the adoption of more new technologies. Changhua Christian Hospital will continue to bring in the latest techniques and equipment to continuously improve the quality of medical care

Title: Real-world insights into NSCLC patients with MET METex14 skipping mutation

Abstract

MET exon 14 skipping is a specific genetic alteration that can occur in non-small cell lung cancer (NSCLC). It involves a mutation or skipping of exon 14 in the MET gene, which leads to abnormal activation of the MET receptor tyrosine kinase. MET exon 14 skipping mutations occur in 3% to 4% of NSCLC cases.

The detection of MET exon 14 skipping is usually done through genetic testing, such as next-generation sequencing (NGS) or multi-gene PCR techniques. Identifying this alteration can help guide treatment decisions and may have implications for targeted therapies.

Targeted therapies that specifically inhibit the MET pathway have been developed for NSCLC patients with MET exon 14 skipping. One such targeted therapy is tepotinib (Tepmetko), an MET inhibitor approved by the U.S. Food and Drug Administration (FDA) for the treatment of NSCLC with MET exon 14 skipping. Other MET inhibitors, such as capmatinib and savolitinib, are also developed in clinical trials. In Taiwan, tepotinib is reimbursed for NSCLC patients with MET exon 14 skipping by NHIA. However, it's mutually exclusive between tepotinib and immunotherapy drugs. Thus, it's crucial to identify driver mutations as early as possible for patients to receive efficacious treatment.

In summary, MET exon 14 skipping is a genetic alteration found in a subset of NSCLC cases. It leads to abnormal activation of the MET receptor tyrosine kinase and is associated with specific subtypes of NSCLC. Targeted therapies that inhibit the MET pathway have shown promise in treating NSCLC patients with this genetic alteration.

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2024 Annual Meeting of Taiwan Society of Thoracic Surgeons
Abstract

Title: Optimizing Survival in Resected NSCLC through Targeted Therapy for Driver Gene Mutations

Speaker: Cheng-Hung How (郝政鴻醫師)

Organization/Institute:

Abstract

Resected non-small cell lung cancer (NSCLC) patients with driver gene mutations, such as EGFR, ALK, and others, continue to face a significant risk of recurrence even after surgery. Adjuvant therapy is therefore crucial in reducing this risk and improving long-term outcomes. Targeted therapies, particularly for patients with EGFR mutations have shown to prolong disease-free survival and decrease the likelihood of relapse. MDT discussions, involving thoracic surgeons, medical oncologists, and molecular pathologists, are essential for creating personalized treatment plans that optimize patient outcomes. By incorporating targeted therapies into post-surgical treatment strategies, MDTs can improve overall survival rates and manage recurrence risks more effectively, offering significant advancements in the care of resected NSCLC patients.

Title: Safety and Efficacy of Laparo-Gastroscopic Esophagectomy:

A Retrospective Study of a Primary Case Series

Abstract

ABSTRACT

Background

The transcervical gastroscopic esophagectomy advanced the gastroscope from intraluminal to extraluminal dissection for esophageal cancer. Its integration with a laparoscopic gastric conduit formation, known as laparo-gastroscopic esophagectomy (LGE), led to the introduction of an updated transhiatal esophagectomy procedure. We herein report the primary LGE case series to demonstrate its safety and efficacy.

Methods

We first began performing LGEs in June 2020. In this article, we retrospectively review the results of a primary cohort. From June 2020 to September 2021, endoscopic sentinel lymph node navigation (SLN), an addition to the LGE procedure, was performed in patients 6 to 11. Data on patients' clinical features, post-operative outcomes, and complications were collected and analyzed.

Results

LGE was successfully performed in 10 of the 11 patients; however, 1 patient was excluded as mucosal skip metastasis was observed in the cervical esophagus during the SLN inspection. There were no intraoperative conversions or complications, and all the patients tolerated the procedure well. Postoperatively, 2 patients developed pulmonary complications (1 case of aspiration and 1 case of pleural effusion). All patients were discharged < 10 days postoperatively, and none of the patients died within 30 days of the procedure. The SLNs were detected and removed in the last 4 cases, and the frozen section examination results

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were negative.

Conclusions

Based on the primary cohort that received LGE, the procedure has promising surgical results. The addition of SLN navigation further guarantees its oncological efficacy.

Primary chest wall tumor - Taipei veterans General Hospital experience

Primary chest wall tumor is not common but it encompasses tumors of various origins including bone and cartilage, soft tissue such as muscle, vessel, nerve, and even some hematologic diseases. The clinical presentation of primary chest wall tumor is usually nonspecific and it is sometimes difficult to make an accurate diagnosis before histologic examination. In our previous publication in 2006, we analyzed 62 patients who were diagnosed as primary chest wall tumors in Taipei Veterans General Hospital between 1991 and 2004. The clinicopathological features, management, and the outcome of these patients were retrospectively reviewed. As a sequel to that report, my presentation will focus on our experience of primary chest wall tumors between 2005 and 2020. The clinical presentation, distribution of histological diagnosis, and treatment outcome of patients with primary chest wall tumors will be analyzed.

Taiwan Society of Thoracic Surgeons abstract

Title: Salvage Surgery for Advanced EGFR-mutant Non-small Cell Lung Cancer Patients Receiving EGFR-TKI Treatment

Abstract

Stage IIIB-IV non-small-cell lung cancer (NSCLC) was previously considered unresectable, and chemotherapy was the standard treatment. Patients with advanced NSCLC with activating epidermal growth factor receptor (EGFR) mutations have better response rates and clinical outcomes when treated with EGFR-tyrosine kinase inhibitors (TKIs) than with traditional chemotherapy. Therefore, some advanced EGFR-mutant NSCLC patients who were previously regarded as inoperable may become operable after EGFR-TKI treatment. In this session, I will focus on the literature review and experience sharing from National Taiwan University Hospital regarding to the salvage surgery for advanced EGFR-mutant NSCLC patients receiving EGFR-TKI treatment.

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Abstract

- Title: Mastering robotic thoracic surgery: Zoom in on what you would want to know

Abstract

What is the benefit of robotic surgery? How should I navigate my way forward with this technology? This session will focus on the frequently asked questions collected from surgeons around Taiwan and address the key to mastering robotic thoracic surgery.

One of the significant advancements in lung cancer surgery in recent times has been the adoption of minimally invasive procedures from video-assisted thoracic surgery(VATS) to robot-assisted thoracic surgery. By partnering with the National Health Insurance and by taking advantage of state-of-the-art technologies, Taiwanese thoracic surgeons have started to utilize the da Vinci robotic platform to deliver surgical care of even higher quality. The robotic platform offers core technological features: improved dexterity, precision, and visualization. It is important that these innovations are adopted safely and effectively.

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Abstract

Title:

Thoracoscopic lobectomy and bronchus repair with 3D image reconstruction

Abstract

Bronchoplasty and reconstruction surgery is usually applied to the patient with a lung tumor located approximately to the bifurcation of the trachea or main bronchus. Preoperative surgical planning is a big challenge for the thoracic surgeon.

The 3D image reconstruction technique becomes much mature, and this technique is applied widely to the medical field in recent years. With preoperative 3D image reconstruction, our surgeon can make a much more precise surgical plan, improving outcomes and reducing severe postoperative complications.

Here we presented a 63-year-old patient with left lower lobe adenoid cystic carcinoma, who underwent thoracoscopic lobectomy and bronchus repair with 3D image reconstruction.

中文主題目：肺移植的新南向之旅

英文主題目：Lung Transplantation Journey on the Road of the New Southbound Policy

摘要：

新南向政策是台灣政府積極推動的外交政策，旨在擴大與印太地區國家的合作關係。這一政策不僅關注經濟和文化合作，還特別關注醫療領域的合作，包括肺臟移植手術交流。

為配合政府推動新南向政策的醫療交流，臺大醫院自 2018 年起協助越南越德醫院訓練該院的肺臟移植團隊，一共培訓了 11 位的醫事人員，其中包含 3 位種子醫師。該院團隊成員在受訓完成返國後，也在兩年內順利完成五例的肺移植手術，成為越南首屈一指且唯一能自行執行肺移植手術的醫學中心。有鑑於本院的精實訓練成果，111 年「印尼國立肺臟醫院」也與本院簽訂交流合約，邀請本院肺移植團隊至該院訪問，協助該院建構肺臟移植團隊及發展肺臟移植醫療計畫。本院日後將持續配合國家政策，代訓新南向國家的肺移植團隊，希冀建構長久、扎實、且平等互惠的國際醫療交流。

最重要的是，發展過程鼓勵台灣和新南向國家建立長期的合作關係，以持續共享醫療知識，解決問題，並擴展合作到其他醫療領域。這有助於提高台灣在國際醫療領域的聲譽和影響力，同時也改善了新南向國家的醫療水平，實現了政策的共贏目標。

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Abstract

Title: How to achieve better survival benefits in resectable NSCLC, from adjuvant IO therapy to neoadjuvant IO therapy

Abstract

Despite advances in cancer treatment, but continued declines in mortality, lung cancer remains the leading cause of cancer death in the world. Nearly half of patients with non-small cell lung cancer (NSCLC) are diagnosed with early-stage, localized or regional disease and are at high risk of recurrence within 5 years of diagnosis. Immune checkpoint inhibitors (ICIs) have improved outcomes in patients with metastatic NSCLC and have recently been tested in early-stage lung cancer in multiple clinical trials to determine the efficacy of neoadjuvant or adjuvant therapy in patients with localized or regional disease. The prospect of perioperative ICI for lung cancer is developing rapidly, and recent reports show that the results of multiple clinical trials are gradually maturing; and recent data have also found that ICI has significant potential in improving the early remission rate and reducing the recurrence rate of lung cancer.