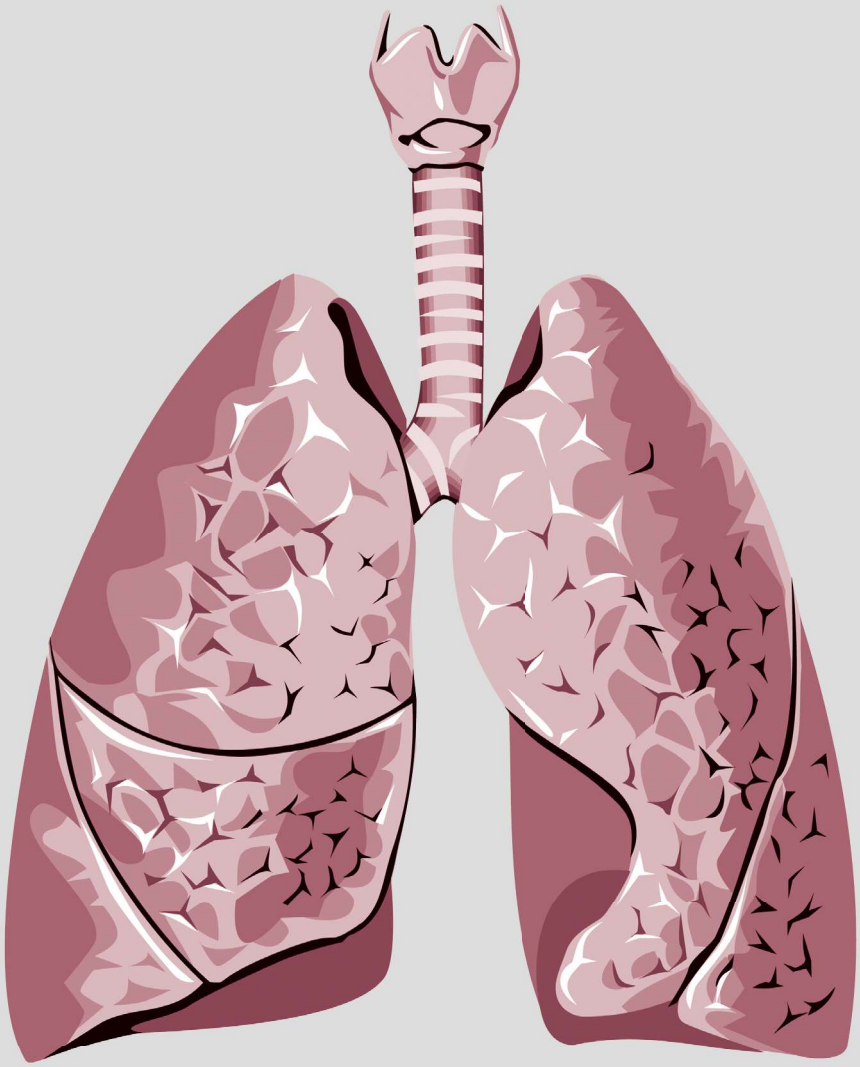
ISSN 1023-9855

Thoracic Medicine

Volume 39 • Number 4 • December 2024



The Official Journal of

Taiwan Society of Pulmonary and Critical Care Medicine

Taiwan Society of Sleep Medicine

Taiwan Society for Respiratory Therapy

Taiwan Society of Tuberculosis and Lung Diseases

Thoracic Medicine

The Official Journal of
Taiwan Society of Pulmonary and Critical Care Medicine
Taiwan Society for Respiratory Therapy
Taiwan Society of Sleep Medicine
Taiwan Society of Tuberculosis and Lung Diseases

Thoracic Medicine

The Official Journal of
Taiwan Society of Pulmonary and Critical Care Medicine
Taiwan Society for Respiratory Therapy
Taiwan Society of Sleep Medicine
Taiwan Society of Tuberculosis and Lung Diseases

Volume 39
Number 4
December 2024

CONTENTS

Orginial Articles

Risk Factors for Hypoxemia in Hospitalized Adult Patients with SARS-CoV-2 Infection ..... 298~309
Jyun-Wei Kang, De-En Lu, I-Ju Chen, Chih-Hsin Lee, Ming-Chia Lee, Yin-Chun Chang

Comparison of Clinical Efficacy of Extended Infusion and Intermittent Bolus Dosing of Piperacillin-Tazobactam in the Treatment of Pneumonia ..... 310~318
Hung-Jui Ko, Kuang-Yao Yang, Wei-Chih Chen, Chia-Hung Chen, Yao-Tung Wang, Pin-Kuei Fu, Li-Kuo Kuo, Chin-Ming Chen, Wen-Feng Fang, Chih-Yen Tu, Shih-Chi Ku, Chuan-Yen Sun

Case Reports

Miliary Tuberculosis and Identification of Tuberculosis-Immune Reconstitution Inflammatory Syndrome (TB-IRIS) – A Case Report ..... 319~326
Chia-Ju Wu Yen-Han Tseng, Sheng-Wei Pan, Jia-Yih Feng, Yuh-Min Chen

Computed Tomography Angiography-Negative Pulmonary Arteriovenous Malformations Diagnosed Using a Lung Perfusion Scan: A Case Report ..... 327~331
Hsin-I Cheng, Chun-Yu Lin, Po-Jui Chang, Horng-Chyuan Lin

An Unusual Presentation of Pulmonary Sequestration: A Case Report ..... 332~335
Yi-Yu Lin, Chin-Feng Wu

MALT Lymphoma Presenting as Bilateral Pulmonary Nodules: A Case Report ..... 336~338
Jen-Hao Chuang

Chylous Effusion in A Patient with Lung Adenocarcinoma Cancer Treated with Rearranged During Transfection-Tyrosine Kinase Inhibitors: A Case Report ..... 339~346
Wei-Hsuan Chang, Gee-Chen Chang

Pulmonary *Trichosporon asahii* Infection in a Patient with Post-COVID-19 Organizing Pneumonia ..... 347~355
Kenneth Yung, Yao-Wen Kuo, Chia-Lin Hsu, Jin-Yuan Shih

Testicular Tuberculosis with Ggeneralized Granuloma – A Case Report ..... 356~358
Che-Min Hsu , Sheng-Wei Pan, Yi-Chen Yeh

Aberrant Lingular Vein-Preserving Left Lower Lobectomy-A Case Report ..... 359~363
Wen-Ruei Tang, Ying-Yuan Chen, Yau-Lin Tseng

Mediastinal Tuberculous Lymphadenitis Diagnosed by EBUS-TBNA – A Case Report ..... 364~368
Tse-Yu Chen, Chung-Kan Peng, Shih-En Tang, Sheng-Huei Wang, Chen-Liang Tsai

Pulmonary Nocardiosis with Multiple Brain Abscesses: A Case Report ..... 369~374
Mei-Yuan Teo, Chen-Yiu Hung, Chun-Hua Wang, Horng-Chyuan Lin

Treatment of Iatrogenic Cervical Esophageal Transection Following Thyroidectomy – A Case Report ..... 375~379
Kai-Yun Hsueh, En-Kuei Tang

Resistance Transformation in Lung Adenocarcinoma Following Targeted Therapy: A Case Study ..... 380~388
Yi-Chen Shao, Wan-Shan Li, Chang-Yao Chu, Sheng-Tsung Chang, Shu-Farn Tey

Risk Factors for Hypoxemia in Hospitalized Adult Patients with SARS-CoV-2 Infection

Jyun-Wei Kang[1], De-En Lu[2,3], I-Ju Chen[4], Chih-Hsin Lee[3,5,6], Ming-Chia Lee[1,7,8,*], Yin-Chun Chang[9,*]

Background: This study identified risk factors for silent hypoxemia in SARS-CoV-2-infected patients, who may have decreased blood oxygen levels, without evident shortness of breath, which complicates diagnosis and treatment.

Methods: This retrospective study included patients with SARS-CoV-2 infection who were hospitalized at 2 facilities from February 1, 2020 to August 31, 2021. First, the patients were categorized based on the presence or absence of hypoxemia at admission. Second, the patients without dyspnea were further divided into groups with and without hypoxemia at admission. We conducted a multivariate logistic regression analysis to identify risk factors for hypoxemia. Finally, we compared the severity of hypoxemia in the patients with and without dyspnea.

Results: Out of 453 patients (excluding those aged under 20 years), 60.9% had hypoxemia. Risk factors included older age, obesity (BMI > 30 mg/m^2), type 2 diabetes mellitus, cough, dyspnea, fever, and muscle weakness. Of the 286 patients without dyspnea, 50.3% had hypoxemia, with hypertension, type 2 diabetes mellitus, cough, fever, and muscle weakness as risk factors. Of the 276 hypoxemic patients, 52.2% lacked dyspnea symptoms. Those with dyspnea tended to need more oxygen therapy, had higher lactate dehydrogenase and D-dimer levels, and had a higher mortality rate.

Conclusion: Older age, obesity, diabetes, cough, fever, and muscle weakness increase hypoxemia risk in SARS-CoV-2 infections. Hypertension, diabetes, cough, fever, and muscle weakness are significant risk factors for silent hypoxemia. ***(Thorac Med 2024; 39: 298-309)***

Key words: COVID-19, SARS-CoV-2, hypoxemia, silent hypoxemia

[1]Department of Pharmacy, New Taipei City Hospital, New Taipei City, Taiwan, [2]Division of Nephrology, Department of Internal Medicine, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan, [3]Pulmonary Research Center, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan, [4]Division of Pulmonary Medicine, Department of Internal Medicine, New Taipei City Hospital, New Taipei City, Taiwan, [5]Division of Pulmonary Medicine, Department of Internal Medicine, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan, [6]Division of Pulmonary Medicine, Department of Internal Medicine, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan, [7]Department of Nursing, Cardinal Tien College of Healthcare and Management, Taipei, Taiwan, [8]School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan, [9]Division of Thoracic Surgery, Department of Surgery, Wan Fang Hospital, Taipei Medical University, Taiwan

* Correspondence: Dr. Ming-Chia Lee, Department of Pharmacy, New Taipei City Hospital, New Taipei City, Taiwan, No. 3, Sec. 1, New Taipei Blvd., Sanchong Dist., New Taipei City, Taiwan.
Dr. Yin-Chun Chang, Division of Thoracic Surgery, Department of Surgery, Wan Fang Hospital, Taipei Medical University, Taiwan, No. 111, Sec. 3, Xinglong Rd., Wenshan Dist., Taipei City, Taiwan

Comparison of Clinical Efficacy of Extended Infusion and Intermittent Bolus Dosing of Piperacillin-Tazobactam in the Treatment of Pneumonia

Hung-Jui Ko[1], Kuang-Yao Yang[1,2], Wei-Chih Chen[1,3], Chia-Hung Chen[4], Yao-Tung Wang[5], Pin-Kuei Fu[6], Li-Kuo Kuo[7], Chin-Ming Chen[8], Wen-Feng Fang[9], Chih-Yen Tu[4], Shih-Chi Ku[10], Chuan-Yen Sun[1,2]

Introduction: Pneumonia is a significant cause of morbidity and mortality worldwide. Beta-lactam antibiotic is a choice as an empirical treatment for pneumonia. Based on pharmacodynamic and pharmacokinetic characteristics, extended infusion beta-lactam antibiotic had a potentially better outcome than intermittent bolus dosing. This study aimed to compare the effectiveness of intermittent bolus dosing of piperacillin-tazobactam (PIP-TAZ) and extended infusion of PIP-TAZ in the treatment of pneumonia patients in Taiwan.

Methods: This retrospective study enrolled adult patients diagnosed with either severe community-acquired pneumonia (SCAP) or nosocomial pneumonia across 9 hospitals in Taiwan from March 1, 2018 to May 30, 2019. Primary outcome was clinical cure rate, while secondary outcomes included clinical effectiveness and in-hospital mortality.

Results: A total 1212 patients with pneumonia were included, of which 639 received intermittent bolus dosing of PIP-TAZ and 34 received extended infusion of PIP-TAZ. After propensity score matching using the Charlson comorbidity index, the clinical cure rate and clinical effectiveness were similar in both groups. However, in the SCAP group, the intermittent bolus group demonstrated higher rates of clinical cure and effectiveness than the extended infusion group (clinical cure rate: 94.4% vs 61.1%, $p = 0.016$; clinical effectiveness: 94.4% vs 66.7%, $p = 0.035$).

Conclusion: For the treatment of nosocomial pneumonia, intermittent bolus dosing of PIP-TAZ was non-inferior to an extended infusion strategy. Moreover, intermittent bolus dosing of PIP-TAZ demonstrated higher potency in treating SCAP than the extended infusion strategy. ***(Thorac Med 2024; 39: 310-318)***

Key words: piperacillin-tazobactam, pneumonia, extended infusion

[1]Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan, [2]School of Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan, [3]Institute of Emergency and Critical Care Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan, [4]Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, China Medical University Hospital, Taichung, Taiwan, [5]Division of Pulmonary Medicine, Department of Internal Medicine, Chung Shan Medical University Hospital, Taichung, Taiwan, [6]Department of Medical Research, Taichung Veterans General Hospital, Taichung, Taiwan, [7]Department of Critical Care Medicine, MacKay Memorial Hospital, Taipei, Taiwan, [8]Department of Intensive Care Medicine, Chi Mei Medical Center, Tainan, Taiwan, [9]Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan, [10]Division of Chest Medicine, Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan

Address reprint requests to: Dr. Chuan-Yen Sun, Department of Chest Medicine, 14F, No.201, Sec. 2, Shipai Rd., Beitou District, Taipei City, Taiwan.

Miliary Tuberculosis and Identification of Tuberculosis-Immune Reconstitution Inflammatory Syndrome (TB-IRIS) – A Case Report

Chia-Ju Wu[1], Yen-Han Tseng[1,2], Sheng-Wei Pan[1,2], Jia-Yih Feng[1,2], Yuh-Min Chen[1,2]

Miliary tuberculosis (TB), an often-fatal infectious disease in the absence of intervention, is increasingly observed among immunocompromised individuals. This case study presented a middle-aged man with rheumatoid arthritis who developed miliary TB following anti-tumor necrosis factor-alpha antibody therapy. Sputum conversion was achieved 3 months after the initiation of therapy, but the patient subsequently experienced TB-immune reconstitution inflammatory syndrome characterized by multi-organ involvement. ***(Thorac Med 2024; 39: 319-326)***

Key words: miliary tuberculosis, tuberculosis-immune reconstitution inflammatory syndrome (TB-IRIS), immunocompromised, rheumatoid arthritis, disease-modifying anti-rheumatic agents (DMARDs), anti-TNF-α antibody

[1]Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan, [2]School of Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan
Address reprint requests to: Dr. Jia-Yih Feng, Department of Chest Medicine, Taipei Veterans General Hospital #201, Sec. 2, Shih-Pai Road, Taipei 11217, Taiwan

Computed Tomography Angiography-Negative Pulmonary Arteriovenous Malformations Diagnosed Using a Lung Perfusion Scan: A Case Report

Hsin-I Cheng[1], Chun-Yu Lin[1], Po-Jui Chang[1], Horng-Chyuan Lin[1]

Pulmonary arteriovenous malformations (PAVMs) are an uncommon and insidious disease caused by abnormal communication between pulmonary arteries and veins. They may remain asymptomatic but can also cause a broad spectrum of symptoms, including dyspnea, hemoptysis, platypnea, hypoxemia, or even neurological insults. Computed tomography angiography (CTA) is a useful tool for establishing the diagnosis in almost all patients with PAVMs. However, a lung perfusion scan may provide some diagnostic benefit when the CTA results are negative. ***(Thorac Med 2024; 39: 327-331)***

Key words: Pulmonary arteriovenous malformations, computed tomography angiography, lung perfusion scan

[1]Department of Thoracic Medicine, Chang Gung Memorial Hospital, Taoyuan, Taiwan
Address reprint requests to: Dr. Horng-Chyuan Lin, Department of Thoracic Medicine, Chang Gung Memorial Hospital, No.5, Fuxing St., Guishan Dist., Taoyuan City 333, Taiwan

An Unusual Presentation of Pulmonary Sequestration: A Case Report

Yi-Yu Lin[1], Chin-Feng Wu[1,2]

Pulmonary sequestration is a rare congenital malformation of the lung, and is divided into 2 types: intralobar sequestration and extralobar sequestration. Unique clinical symptoms and radiological findings have been reported by researchers. In our case, a healthy 71-year-old male patient came to our Thoracic Surgery Outpatient Department in June 2023, due to a 2.7-cm left lower lung solid mass, which was found accidently. During operation, an unsuspected pulmonary sequestration was noted, and the final pathology of the resected lung mass was adenocarcinoma in situ within pulmonary sequestration. Adenocarcinoma associated with pulmonary sequestration is rare. To confirm the diagnosis, angiography is necessary. The treatment of choice is lobectomy, but sublobar resection could be an alternative modality. Video-assisted thoracoscopic or da Vinci assisted lung mass resection by an experienced surgeon are feasible, with awareness of the potential risk of vascular injury. ***(Thorac Med 2024; 39: 332-335)***

Key words: Pulmonary sequestration, adenocarcinoma-associated pulmonary sequestration

[1]College of Medicine, Chang Gung University, Division of Thoracic and Cardiovascular Surgery, Department of Surgery, Chang Gung Memorial Hospital, Taoyuan. [2]Department of Thoracic Surgery, Minimally Invasive Thoracic Surgery Unit (UCTMI), Coruña University Hospital, Coruña, Spain.
Address reprint requests to: Dr. Yi-Yu, Lin, Division of Thoracic Surgery, Chang Gung Memorial Hospital-Linkou, 5 Fuxing Street, Guishan District, Taoyuan 333, Taiwan.

MALT Lymphoma Presenting as Bilateral Pulmonary Nodules: A Case Report

Jen-Hao Chuang[1,2]

Mucosa-associated lymphoid tissue (MALT) lymphoma, a subtype of non-Hodgkin lymphoma, typically arises in the stomach, but can also present in various extranodal sites, including the lung. Lung involvement of MALT lymphoma is rare, and bilateral single pulmonary nodules as a presentation are even rarer. This report details a unique case of MALT lymphoma presenting as bilateral lung tumors in a 53-year-old male. ***(Thorac Med 2024; 39: 336-338)***

Key words: lung tumor, uniportal VATS, mucosa-associated lymphoid tissue (MALT) lymphoma

[1]Department of Surgery, National Taiwan University Hospital and National Taiwan University College of Medicine, Taipei, Taiwan. [2]Department of Surgical Oncology, National Taiwan University Cancer Center, National Taiwan University College of Medicine, Taipei, Taiwan.
Address reprint requests to: Dr. Jen-Hao Chuang, National Taiwan University Cancer Center, No. 57, Ln. 155, Sec. 3, Keelung Road, Da'an Dist., Taipei City 106, Taiwan.

Chylous Effusion in A Patient with Lung Adenocarcinoma Cancer Treated with *Rearranged During Transfection*-Tyrosine Kinase Inhibitors: A Case Report

Wei-Hsuan Chang[1], Gee-Chen Chang[1,2,3,4]

Rearranged during transfection (*RET*) rearrangement/fusion-positive non-small cell lung cancer (NSCLC) accounts for 1%–2% of the NSCLC population, and can now be treated effectively with selective RET-tyrosine kinase inhibitors (TKIs), including selpercatinib and pralsetinib. Occasionally, rare side effects can occur with the use of TKIs. Here, we report the case of a 48-year-old man with RET fusion-positive stage IV lung adenocarcinoma who demonstrated a good tumor response to selpercatinib. Unfortunately, the patient developed symptomatic refractory chylous ascites, a rare side effect, 9 months after initiating selpercatinib therapy. Chylous effusion has been reported more frequently with selpercatinib treatment, while pralsetinib-related chylous effusion rarely occurs. In our case report, the patient's chylous effusion persisted even after switching the medication to pralsetinib. We also briefly reviewed various methods that have been successful in treating RET-TKI-induced chylous effusion. ***(Thorac Med 2024; 39: 339-346)***

Key words: RET, lung cancer, selpercatinib, pralsetinib, chylous effusion

[1]Division of Pulmonary Medicine, Department of Internal Medicine, Chung Shan Medical University Hospital, Taichung, Taiwan. [2]School of Medicine, Chung Shan Medical University, Taichung, Taiwan. [3]Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan. [4]Institute of Biomedical Sciences, National Chung Hsing University, Taichung, Taiwan

Address reprint requests to: Dr. Gee-Chen Chang, Division of Pulmonary Medicine, Department of Internal Medicine, Chung Shan Medical University Hospital, No. 110, Sec. 1, Jianguo N. Road, Taichung, 402, Taiwan

Pulmonary *Trichosporon Asahii* Infection in a Patient with Post-COVID-19 Organizing Pneumonia

Kenneth Yung[1], Yao-Wen Kuo[2], Chia-Lin Hsu[1], Jin-Yuan Shih[1]

SARS-CoV-2 infection is associated with several sequelae that may occur following the initial infection. We report on the case of an 80-year-old man who developed new onset hypoxia and bilateral pulmonary opacities after his initial mild COVID-19. He was initially treated empirically with broad-spectrum antibiotics, with a poor response. Computed tomography imaging was compatible with organizing pneumonia, so steroids were added. However, oxygen demand and pulmonary opacities showed a poor response to treatment. Sputum culture was later positive for the growth of *Trichosporon asahii*, so voriconazole was added and corticosteroids were tapered. The patient was successfully treated after the addition of voriconazole. Our case highlights that *Trichosporon asahii* superinfection may occur after COVID-19, and its growth from sputum cultures should merit treatment as a true pathogen. ***(Thorac Med 2024; 39: 347-355)***

Key words: SARS-CoV-2, COVID-19, Trichosporon asahii, organizing pneumonia

[1]Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan. [2]Department of Integrated Diagnostics and Therapeutics, National Taiwan University Hospital, Taipei, Taiwan

Address reprint requests to: Dr. Kenneth Yung, No. 7, 11th Fl., Lane 48, Section 2, Roosevelt Rd, Zhongzheng District, Taipei City, 100, Taiwan

Testicular Tuberculosis with Ggeneralized Granuloma – A Case Report

Che-Min Hsu[1], Sheng-Wei Pan[1,2], Yi-Chen Yeh[3]

A 65-year-old man presented with a painless left-side scrotal swelling for 6 months. He had urinary urgency, but denied fever, cough or a tuberculosis (TB) history. Physical examination disclosed a normal right testis, but a hard and non-reducible left testis mass. Alpha-fetoprotein and beta-HCG levels were normal. Urinalysis revealed pyuria with a white blood cell count of 10-19/high power fields. Urine acid-fast bacilli smears were negative. Ultrasonography revealed a normal right testis, but an enlarged left testis with heterogeneous echogenicity showing diffuse hypoechoic nodules and increased internal vascularity. Due to concerns regarding testicular cancer, he received a left radical orchiectomy. Cut section of the specimen revealed generalized granuloma involving the testis and epididymis. The histological findings were necrotizing granuloma and multinucleated giant cells. The tissue tested positive for the Mycobacterium tuberculosis-specific IS6110 gene. A urine sample was culture-positive for M. tuberculosis 2 months later, and the sensitivity tests were confirmed. The patient started standard anti-TB chemotherapy. His pyuria resolved and urine samples were culture-negative after 2 months of therapy. The patient completed 6-month treatment smoothly for his testicular TB. ***(Thorac Med 2024; 39: 356-358)***

Key words: Tuberculosis, necrotizing granuloma

[1]Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan. [2]School of Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan. [3]Department of Pathology and Laboratory Medicine, Taipei Veterans General Hospital, Taipei, Taiwan
Address reprint requests to: Dr. Sheng-Wei Pan, Department of Chest Medicine, Taipei Veterans General Hospital, No. 201, Sec. 2, Shih-Pai Rd., Taipei 11217, Taiwan.

Aberrant Lingular Vein-Preserving Left Lower Lobectomy – A Case Report

Wen-Ruei Tang[1], Ying-Yuan Chen[1], Yau-Lin Tseng[1]

Advances in thin-slice CT and video-assisted thoracoscopic surgery allow for precise thoracic surgeries. We reported the case of a 54-year-old ex-smoker with a 3 cm cavitary lesion in the left lower lung, who opted for direct surgery. Preoperatively, an anomalous left lingular vein draining into the inferior pulmonary vein was noted. Meticulous dissection preserved lingular venous drainage during uniportal video-assisted thoracoscopic surgery-left lower lobectomy. The final pathology suggested IgG4-related disease. The patient's recovery was uneventful, and he was regularly followed up at the outpatient department. ***(Thorac Med 2024; 39: 359-363)***

Key words: anomalous left lingular vein, case report, left lower lobectomy, pulmonary vein, uniportal video-assisted thoracoscopic surgery

[1]Division of Thoracic Surgery, Department of Surgery, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan.
Address reprint requests to: Dr. Ying Yuan Chen, Division of Thoracic Surgery, Department of Surgery National Cheng Kung University Hospital and College of Medicine, National Cheng Kung University, Tainan, Taiwan No.138, Sheng Li Road, Tainan, Taiwan 704, R.O.C..

Mediastinal Tuberculous Lymphadenitis Diagnosed by EBUS-TBNA – A Case Report

Tse-Yu Chen[1], Chung-Kan Peng[1], Shih-En Tang[1], Sheng-Huei Wang[1]
Chen-Liang Tsai[1]

The neck is the most common site for tuberculous lymphadenitis; however, mediastinal tuberculous lymphadenitis could be underestimated in daily practice. We reported a patient with COVID-19 infection, and mediastinal lymphadenopathy was accidentally found on chest computed tomography and magnetic resonance imaging. The patient received endobronchial ultrasound and transbronchoscopic needle aspiration for a pretracheal retrocaval node with drainage of black fluid. Tuberculous lymphadenitis was diagnosed and confirmed by mycobacterium tuberculosis-polymerase chain reaction. The patient then received anti-tuberculosis medications for treatment of mediastinal tuberculous lymphadenitis. ***(Thorac Med 2024; 39: 364-368)***

Key words: tuberculous lymphadenitis, EBUS-TBNA, endobronchial ultrasound, tuberculosis

[1]Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan.
Address reprint requests to: Dr. Chen-Liang Tsai, Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Tri-Service General Hospital, National Defense Medical Center, No. 325, Section 2, Cheng-Gong Rd, Neihu 114, Taipei, Taiwan.

Pulmonary Nocardiosis with Multiple Brain Abscesses: A Case Report

Mei-Yuan Teo[1], Chen-Yiu Hung[1], Chun-Hua Wang[1], Horng-Chyuan Lin[1]

Nocardiosis is a rare but potentially life-threatening infectious disease, especially in immunocompromised individuals and those with central nervous system (CNS) involvement. We reported a case of pulmonary nocardiosis accompanied by multiple brain abscesses that was successfully managed in a young male diagnosed with anti-phospholipid syndrome. Following 12 weeks of combined antimicrobial treatment, significant improvement was observed in the right lung mass and multiple brain abscesses. Subsequent follow-up examinations showed no signs of recurrence or relapse. Nocardia infection can manifest as disseminated disease and central nervous system infection, particularly in immunocompromised patients. Combined antimicrobial therapy is necessary for these patients to improve their chances of survival. ***(Thorac Med 2024; 39: 369-374)***

Key words: *Nocardia* species, pulmonary nocardiosis, brain abscess

[1]Department of Thoracic Medicine, Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Taoyuan, Taiwan.
Address reprint requests to: Dr. Horng-Chyuan Lin, No. 5, Fu-Xing St. Kwei-Shan Dist. Taoyuan City, 33333 Taiwan.

Treatment of Iatrogenic Cervical Esophageal Transection Following Thyroidectomy – A Case Report

Kai-Yun Hsueh[1], En-Kuei Tang[1]

Iatrogenic cervical esophageal transection after thyroidectomy is an extremely rare condition that requires prompt diagnosis and surgical intervention. We reported a case of iatrogenic cervical esophageal transection following thyroidectomy for goiter in a 54-year-old woman. Primary repair was not achievable because of loss of a long segment of the cervical esophagus. A modified diversion was performed by inserting a T-tube into the remnant esophagus, followed by gastrostomy and jejunostomy. The next day, mediastinal abscess was detected on chest computed tomography; therefore, thoracoscopic mediastinotomy was performed, with placement of 2 drains. After 6 months, thoracoscopic esophagectomy, alimentary reconstruction with gastric pull-up, and cervical esophagogastrostomy anastomosis were performed. The patient was discharged without complications. Iatrogenic cervical esophageal transection following thyroidectomy can be successfully managed with a series of treatments, including a modified diversion procedure, prompt drainage of mediastinitis, alimentary reconstruction with gastric pull-up, and cervical esophagogastrostomy anastomosis. ***(Thorac Med 2024; 39: 375-379)***

Key words: Iatrogenic esophageal injury, goiter, thoracoscopic mediastinotomy, thyroidectomy, reconstructive surgery, modified diversion procedure

[1]Division of Thoracic Surgery, Department of Surgery, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan.
Address reprint requests to: Dr. Kai-Yun Hsueh, Division of Thoracic Surgery, Department of Surgery, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan.

Resistance Transformation in Lung Adenocarcinoma Following Targeted Therapy: A Case Study

Yi-Chen Shao[1], Wan-Shan Li[2], Chang-Yao Chu[2,3], Sheng-Tsung Chang[2]
Shu-Farn Tey[1,3]

This report presents the case of a 61-year-old female with advanced non-small cell lung cancer (NSCLC), initially treated with afatinib, a second-generation epidermal growth factor receptor (*EGFR*)-tyrosine kinase inhibitor, after an *EGFR* exon 21 L858R mutation was identified. Despite initial tumor regression, the patient developed resistance, as indicated by disease progression and histological transformation to small cell lung cancer. The subsequent treatment regimen included a combination of chemotherapy and osimertinib, targeting both the original *EGFR* mutation and a later emerging T790M mutation. This case exemplifies the intricate relationship of genetic mutations, treatment responses, and the evolution of resistance in the management of NSCLC. Furthermore, this case underscores the critical need for ongoing research and the development of novel treatments to address NSCLC. ***(Thorac Med 2024; 39: 380-388)***

Key words: Adenocarcinoma, resistance, small cell transformation, epidermal growth factor receptor, T790M

[1]Department of Pulmonary Medication, Chi-Mei Medical Center, Tainan, Taiwan, [2]Department of Pathology, Chi-Mei Medical Center, Tainan, Taiwan, [3]School of Medicine, College of Medicine, National Sun Yat-sen University, Kaohsiung, Taiwan.
Address reprint requests to: Dr. Shu-Farn Tey, Department of Pulmonary Medication, Chi-Mei Medical Center, No. 901, Zhonghua Rd., Yongkang Dist., Tainan City 71004, Taiwan (R.O.C.).