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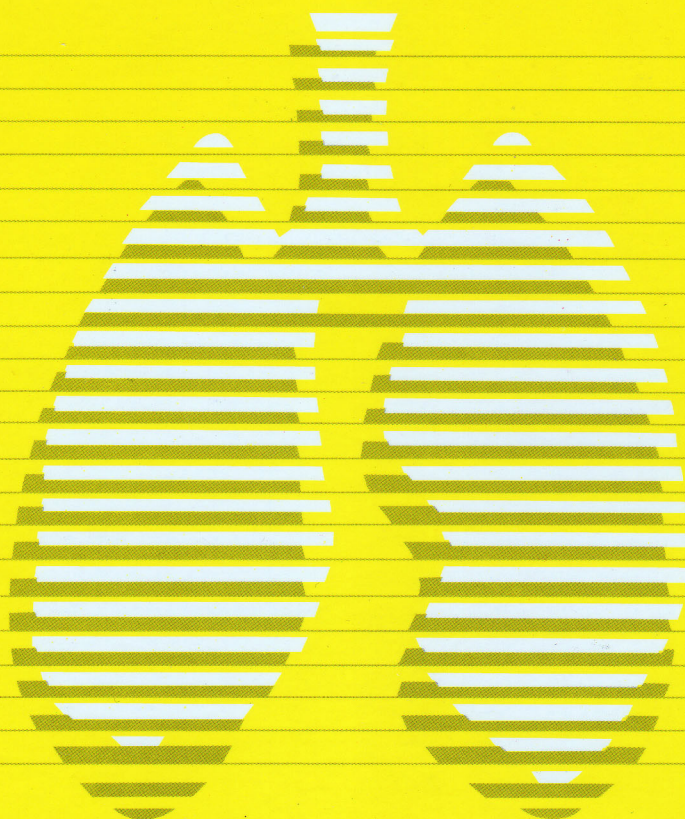
## Thoracic Medicine

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83301 高雄市鳥松區大埤路 123 號

No. 123, Dapi Rd., Niasong Dist.,

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## Thoracic Medicine

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# Atopy and Bronchial Hyper-Responsiveness Relative to Lung Function in Young and Elderly Asthma Patients

Ching-Min Tseng<sup>\*,\*\*\*</sup>, Yi-Han Hsiao<sup>\*\*,\*\*</sup>, Kang-Cheng Su<sup>\*\*,\*\*</sup>, Chi-Wei Tao<sup>\*</sup>,  
Diahn-Warng Perng<sup>\*\*,\*\*</sup>, Mei-Yin Chen<sup>\*</sup>

**Background:** The prevalence of asthma among the elderly is increasing and the incidence of mortality and morbidity in this group is higher than that of young asthmatics. However, the clinical differences between younger and older patients with asthma have not been totally clarified.

**Methods:** In this retrospective, hospital-based study, 992 asthmatic patients who were newly diagnosed and untreated at the outpatient clinic were recruited and placed into one of two groups based on age: a younger (32.4±7.7 years, n=476) and an older (75.2±7.7 years, n=516) group. Data on lung function, smoking history, atopy (defined as having a positive serum allergen immunoassay), methacholine provocation test (MCT), bronchodilator test (BDT), and serum IgE level were obtained.

**Results:** The prevalence of allergic rhinitis, atopic status and higher serum IgE levels was lower in the older group than in the younger group of asthmatics, but the prevalence of positive MCT (79.2% vs 76.1%) and BDT (55.2% vs 56.2%) in the older group was similar to that of the younger group. Patients with a positive MCT had a poor forced expiratory volume in 1 second predicted value (FEV1%); atopy (OR: 2.048,  $p=0.002$ ) and FEV1% (OR: 0.978,  $p=0.001$ ) were associated with positive MCT. Elderly atopic asthmatics had worse FEV1 than elderly non-atopic asthmatics (70.3% vs 77.6%). However, young atopic asthmatics had better FEV1% than young non-atopic asthmatics. Young atopic asthmatics had a higher prevalence of positive MCT than young non-atopic asthmatics ( $p=0.002$ ).

**Conclusions:** Our results revealed differences in clinical characteristics between younger and older asthmatic patients. (*Thorac Med* 2018; 33: 95-105)

Key words: atopy, bronchial hyper-responsiveness, asthma, elderly

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\*Division of Respiratory Therapy, Department of Medicine, Cheng Hsin General Hospital, Taipei, Taiwan;  
\*\*Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan; \*\*\*School of Medicine, National Yang-Ming University, Taipei, Taiwan

Address reprint requests to: Dr. Mei-Yin Chen, Division of Respiratory Therapy, Department of Medicine, Cheng Hsin General Hospital, No. 45, Cheng-Hsin St, Taipei 11217, Taiwan

## 年輕與老年氣喘病人的肺功能與過敏和支氣管過反應的相關性

曾敬閔\*,\*\*\* 蕭逸函\*\*,\*\*\* 蘇剛正\*\*,\*\*\* 陶啟偉\* 彭殿王\*\*,\*\*\* 陳美音\*

**前言：**老年氣喘病的盛行率近幾年逐年增加，其併發症與死亡率也相對上升，目前對於此兩個族群是否有不同的氣喘特徵仍不是相當清楚。

**方法：**這是一個單一中心、回溯性的研究，收集共九百九十二位在胸腔內科門診新診斷且未治療過氣喘的病人，分析包括肺功能、抽菸史、過敏史、氣管激發試驗（methacholine test）、支氣管擴張測驗（bronchodilator test）以及血漿 E 型抗體濃度等數據做為比較。

**結果：**年輕的氣喘病人共 476 人，平均為  $32.4 \pm 7.7$  歲，而 516 位年老氣喘病人平均為  $75.2 \pm 7.7$  歲，在過敏史方面，過敏性鼻炎、過敏體質、以及血中 E 型抗體濃度在年老氣喘病人比例比較低；年老氣喘病人和年輕氣喘病人在支氣管激發試驗（79.2% vs 76.1%）和支氣管擴張反應（55.2% vs 56.2%）的比例無差別，有過敏體質（OR: 2.048,  $p=0.002$ ）或是第一秒用力吐氣量（OR: 0.978,  $p=0.001$ ）與支氣管激發試驗陽性的病人有相關性；年老又有過敏體質的氣喘病人比起年老無過敏體質的病人其第一秒用力吐氣量較差（70.3% vs 77.6%），而年輕有過敏的氣喘病人比起沒有過敏的年輕氣喘病人肺功能反而比較好。

**結論：**我們發現年輕與年老氣喘病人在過敏與肺功能相關檢查的不同特色，可以幫助我們更了解年紀不同的氣喘特色。（*胸腔醫學* 2018; 33: 95-105）

**關鍵詞：**過敏，支氣管過反應，氣喘，老年人

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\* 私立財團法人振興醫學復健中心 內科部 呼吸治療科，\*\* 台北榮民總醫院 胸腔部

\*\*\* 國立陽明大學醫學系

索取抽印本請聯絡：陳美音醫師，私立財團法人振興醫學復健中心 內科部 呼吸治療科，11217 台北市北投區振興街 45 號

# Successful Management of Hypercapnia in a Patient with Moderate-to-Severe Acute Respiratory Distress Syndrome after Lung Recruitment and Prone Ventilation: A Case Report

Hui-Yin Chu, Wei-Ting Su, Po-Lan Su

Hypercapnia presents a formidable treatment challenge in patients with acute respiratory distress syndrome (ARDS). Here, we present the case of a patient with moderate-to-severe ARDS with hypercapnia who was successfully managed with repeated recruitment maneuvers and prone ventilation. This patient had a good response to the late recruitment maneuver and prone ventilation. (*Thorac Med* 2018; 33: 106-110)

Key words: hypercapnia, acute respiratory distress syndrome (ARDS), lung recruitment, prone positioning

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Division of Pulmonary Medicine, Department of Internal Medicine, National Cheng Kung University Hospital, Tainan, Taiwan

Address reprint requests to: Dr. Po-Lan Su, Division of Pulmonary Medicine, Department of Internal Medicine, National Cheng Kung University Hospital, No. 138, Sheng-Li Rd., Tainan 704, Taiwan

# 擴張術合併俯臥通氣在重度呼吸窘迫症候群合併高碳酸血症病人之應用：病例報告

朱惠吟 蘇煒婷 蘇柏嵐

臨床上照護嚴重急性呼吸窘迫症候群的患者，因採取肺容積保護策略，使高二氧化碳血症成為一個棘手的問題。本篇文章，探討一位診斷重度呼吸窘迫症候群的個案，因肺容積保護策略導致高碳酸血症，在介入肺泡擴張及俯臥措施之後，高碳酸血症明顯改善，於住院第十五天成功拔管。( *胸腔醫學* **2018; 33: 106-110** )

關鍵詞：高二氧化碳血症，急性呼吸窘迫呼吸症候群，肺泡擴張術，俯臥

# Hemostatic Sealant Used in Managing Delayed Extravascular Migration of a Totally Implantable Venous Access Device

Zhen-Chian Chen, Wen-Chien Huang, Mei-Lin Chan

For patients who require frequent long-term venous access for treatment, a totally implantable venous access device (TIVAD) provides a safe and effective alternative to repeated venipuncture [1]. However, on rare occasions, the TIVAD tip may cause complications, such as vascular erosion and vascular penetration after prolonged use.

A 54-year-old female cervical cancer patient presented with recurrent hydrothorax after 3 recent courses of chemotherapy. A TIVAD had been implanted through the left cephalic vein 17 months prior to admission for adjuvant chemotherapy. During this admission, the venography through the TIVAD showed a contrast infusion leak into the mediastinum and right pleural cavity, suggesting extravasation at the catheter tip. We removed the device under thoroscopic monitoring and applied hemostatic sealant to the entry site of the migrating TIVAD tip, to close the potential fistula between the superior vena cava and the pleural cavity. (*Thorac Med* 2018; 33: 111-116)

Key words: totally implantable venous access device (TIVAD), port-a-cath, hemostatic sealant, delayed migration, complication

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Division of Thoracic Surgery, MacKay Memorial Hospital, Taipei, Taiwan

Address reprint requests to: Dr. Zhen-Chian Chen, Division of Thoracic Surgery, MacKay Memorial Hospital, Taipei, Taiwan, No. 92, Sec. 2, Zhongshan N. Rd., Zhongshan Dist., Taipei City 104, Taiwan



# 以血管封合劑處理全植入性靜脈導管之延遲性 上腔靜脈穿出

陳震謙 黃文傑 詹梅麟

當病人需要長期、間歇性的靜脈治療，全植入性靜脈導管（totally implantable venous access device (TIVAD)）提供了一個安全又有效的選擇 [1]。但少數情形下，長期使用後的全植入性靜脈導管也可能造成血管損傷甚至穿破血管。

一位五十四歲罹患子宮頸癌的女性病人因反覆的複雜性胸水而轉診至胸腔外科治療。病史發現，病人近三個月診斷出子宮頸癌復發，並接受二線化療。而複雜性胸水反覆發作三次，皆於化療後產生。此次住院後透過靜脈導管進行血管攝影，發現顯影劑滲漏至右側胸腔，意即導管尖端發生延遲性穿出上腔靜脈（superior vena cava）。病人接受胸腔鏡手術處理胸腔感染問題，並在胸腔鏡監測下移除穿出上腔靜脈之靜脈導管。考慮到導管移除後併發肋膜腔及上腔靜脈之間瘻管的潛在風險，我們進一步使用血管封合劑於導管穿出處。（*胸腔醫學* 2018; 33: 111-116）

關鍵詞：全植入性靜脈導管（totally implantable venous access device (TIVAD)），人工血管，血管封合劑（hemostatic sealant），延遲性血管穿出，併發症

# Herpes Simplex Virus Pneumonitis Associated with Oral-Labial Lesion and Tracheobronchitis in an Immunocompetent Patient with Acute Respiratory Distress Syndrome – A Case Report

Yu-Chen Huang, Chun-Yu Lin, Chen-Yiu Hung, Chung-Chi Huang

Herpes simplex virus bronchopneumonia may be associated with acute respiratory distress syndrome (ARDS) in immunocompromised patients. However, herpes simplex virus-1 (HSV-1) detected in the lower respiratory tract in an immunocompetent patient may be pathogenic or colonization. We report the case of an immunocompetent female with pneumonia that progressed to ARDS. The diagnosis was supported by the presence of oral labial vesicles lesions and herpetic ulcers on the left main trachea. Both bronchoalveolar fluid and throat swab viral cultures yielded HSV-1. The pneumonic patches resolved to a great extent following antiviral therapy. Therefore, in patients with an unclear cause of pneumonia and acute hypoxemic respiratory failure, HSV-1 infection should be considered when findings include oral labial vesicles lesions, detection of herpes simplex virus in the throat, and endoscopic bronchial lesions. (*Thorac Med* 2018; 33: 117-122)

Key words: herpes simplex virus type 1, oral-labial vesicles lesion, acute respiratory distress syndrome

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Department of Pulmonary and Critical Care Medicine, Chang Gung Memorial Hospital at Linkou, Taoyuan, Taiwan  
Address reprint requests to: Dr. Chung-Chi Huang, Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Chang Gung Memorial Hospital, No. 5 Fu-Hsing Street, Kweishan, Taoyuan 333, Taiwan

# 單純皰疹病毒支氣管肺炎於免疫力健全病人引起的口腔黏膜皰疹性潰瘍及支氣管炎合併急性呼吸性窘迫：病例報告

黃于真 林鎬語 洪禎佑 黃崇旂

單純皰疹病毒肺炎引起急性呼吸窘迫症常見於免疫力不全病人。然而單純皰疹病毒在免疫力健全病人的臨床角色仍有爭議。本病人為無慢性疾病的中年婦女，本次住院主因為肺炎合併急性呼吸窘迫症。除了支氣管肺泡沖洗液培養病出單純皰疹病毒，並無任何致病菌可解釋其肺炎。病患的嘴巴口唇黏膜出現皰疹性潰瘍，並且在左主支氣管及左上肺葉支氣管都可在支氣管鏡檢查中看見皰疹性潰瘍病灶。經過抗病毒藥物治療後，病人肺部浸潤及氧合能力顯著改善。因脫離呼吸器困難，本病人最後仍死於菌血症合併敗血性休克。單純皰疹性病毒在免疫力健全病人身上仍可能引起肺炎及呼吸衰竭，早期發現並分析危險因子，將有助於臨床醫生正確診斷及治療。( *胸腔醫學* 2018; 33: 117-122)

關鍵詞：單純皰疹性病毒，口腔黏膜皰疹性潰瘍，急性呼吸窘迫症

# Diagnosis of Mediastinal Paraganglioma Using Endobronchial Ultrasound-Guided Trans-Bronchial Needle Aspiration – A Case Report

Ying-Ying Chen\*, Heng-Sheng Chao\*\*, \*\*\*, Chien-Sheng Huang\*\*\*, \*\*\*\*,  
Yuh-Min Chen\*\*, \*\*\*

Mediastinal paragangliomas are rare and pose a diagnostic challenge to clinicians. They arise from para-aortic and para-vertebral sympathetic chain ganglia and often occupy the middle and posterior mediastinum. We report the case of a 53-year-old woman who was found incidentally to have a posterior mediastinal mass on chest computed tomography scan. She underwent endobronchial ultrasound-guided transbronchial needle aspiration of the tumor followed by surgical excision. Both specimens were proved to be paraganglioma by immunohistochemical stains. The patient recovered well and in a 4-month follow-up there was no evidence of recurrence. (*Thorac Med* 2018; 33: 123-129)

Key words: mediastinal paraganglioma, catecholamine-secreting tumor, EBUS-TBNA

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\*Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan; \*\*General Chest Medicine, Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan; \*\*\*School of Medicine, National Yang-Ming Medical University, Taipei, Taiwan; \*\*\*\*Division of Thoracic Surgery, Department of Surgery, Taipei Veterans General Hospital, Taipei, Taiwan

Address reprint requests to: Dr. Heng-Sheng Chao, General Chest Medicine, Department of Chest Medicine, Taipei Veterans General Hospital, No. 201, Sec. 2, Shih-Pai Rd., Taipei 11217, Taiwan

## 以氣管鏡超音波診斷縱膈腔副神經節瘤

陳穎瑩\* 趙恒勝\*\*,\*\*\* 黃建勝\*\*\*,\*\*\*\* 陳育民\*\*,\*\*\*

縱膈腔副神經節瘤唯一少見疾病，對於臨床醫師而言，診斷常常是一項挑戰。縱膈腔副神經節瘤起源於主動脈旁和脊椎旁的交感神經節，通常位於中或者是後縱膈腔。我們提出一位 53 歲女性，接受胸部電腦斷層檢查意外發現後縱膈腔腫瘤。在氣管鏡超音波導引經支氣管切片檢查後，她接受手術切除腫瘤。此兩次取得的標本都由免疫組織化學染色證實為副神經節瘤。病人恢復良好，在四個月後追蹤檢查中並未發現復發。(胸腔醫學 2018; 33: 123-129)

關鍵詞：兒茶酚安分泌腫瘤，氣管鏡超音波導引經支氣管切片，縱膈腔副神經節瘤

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\* 台北榮民總醫院 胸腔部，\*\* 台北榮民總醫院 胸腔部 一般胸腔科

\*\*\* 陽明大學醫學院，\*\*\*\* 台北榮民總醫院 外科部 胸腔外科

索取抽印本請聯絡：趙恒勝醫師，台北榮民總醫院 胸腔部 一般胸腔科，臺北市北投區石牌路二段 201 號



# Massive Hemoptysis : Be Aware of Non-Bronchial Systemic Arterial Supply – A Case Report and Literature Review

Shu-Luen Chang, Heng-Sheng Chao, Chien-Sheng Huang\*, Kang-Cheng Su\*\*

Massive hemoptysis is a life-threatening emergency. The bleeding usually originates from bronchial arteries (BAs), but may also arise from pulmonary arteries, or less frequently from non-bronchial systemic arteries (NBSAs). Bronchial artery embolization (BAE) is considered the first-line management for hemostasis; however, the high rebleeding rate remains a challenge. Bleeding from NBSAs is frequently missed, and this can lead to treatment failure. Surgical resection of the affected lung may eventually be required. We reported the case of a patient with tuberculous lung destruction in the right upper lobe (RUL), who experienced massive hemoptysis from both the BAs and an NBSA. Despite successful embolization of the BAs, bleeding recurred and led to cardiac arrest 2 days after the BAE. With the support of extracorporeal membrane oxygenation, the patient underwent an emergency lobectomy of the RUL. However, re-operative surgery was subsequently required due to rebleeding from a NBSA arising from the right subclavian artery, which was initially missed. The patient survived the critical bleeding episodes, but eventually died of recurrent pneumonia. Comprehensive imaging examinations, recognizing the imaging features and risks of recurrent bleeding, and planning appropriate treatment modalities are essential to improving the outcome in cases of massive hemoptysis. (*Thorac Med* 2018; 33: 130-138)

Key words: bronchial arterial embolization, massive hemoptysis, multidetector computed tomography, non-bronchial systemic artery

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Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan; \*Division of Thoracic Surgery, Department of Surgery, Taipei Veterans General Hospital, Taipei, Taiwan; \*\*Division of Clinical Respiratory Physiology, Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan

Address reprint requests to: Dr. Kang-Cheng Su, Division of Clinical Respiratory Physiology, Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan, No. 201, Sec. 2, Shih-Pai Rd., Beitou District, Taipei 11217, Taiwan, ROC

# 大量咳血：不要忽視非支氣管動脈之體循環動脈 —病例報告及文獻回顧

張書綸 趙恆勝 黃建勝\* 蘇剛正\*\*

大量咳血是一種致命的急症。造成出血的來源主要是支氣管動脈（90%），少數會來自肺動脈（5%）或非支氣管動脈之體循環動脈。第一線止血措施通常是支氣管動脈栓塞，但再出血率仍然偏高，而手術切除病灶才是根除性的治療。源自非支氣管動脈之體循環動脈的出血經常被忽略，因而導致治療失敗。我們報導一位因陳舊性肺結核毀損的右上肺葉出血所導致大量咳血的病例，該出血之肺葉具有少見之雙重出血來源 - 包括支氣管動脈及非支氣管動脈之體循環動脈。雖然該案例之急性出血在接受支氣管動脈栓塞術後暫時止血，兩天後又再次大咳血導致心跳一度停止。在葉克膜的支持之下，病患先接受了右上肺葉切除術，但隨即又因來自右鎖骨下動脈的分支動脈出血再次接受緊急手術。病患雖然撐過急性出血期，最後仍死於反覆肺炎。詳盡的影像學評估、辨識容易再出血的影像學徵象與危險因子，以及妥善計畫各種治療方式為改善預後的關鍵。( *胸腔醫學* 2018; 33: 130-138)

關鍵詞：支氣管動脈栓塞，大量咳血，多偵測器電腦斷層，非支氣管動脈之體循環動脈