

ISSN 1023-9855



# 胸腔醫學

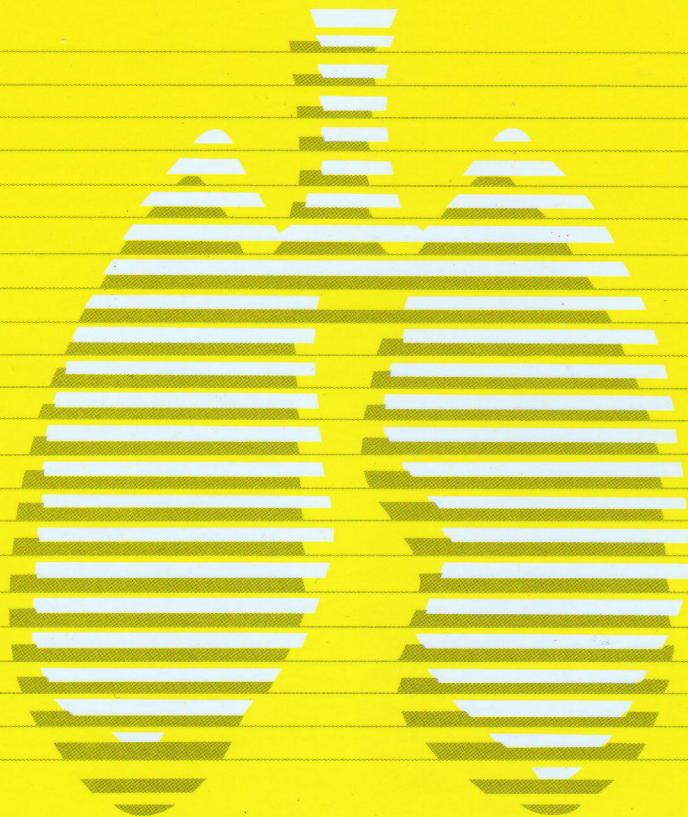
## Thoracic Medicine

The Official Journal of Taiwan Society of  
Pulmonary and Critical Care Medicine

Vol.32 No.3 June 2017

第三十二卷 第三期

中華民國一〇六年六月



台灣胸腔暨重症加護醫學會

10048 台北市常德街 1 號

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Taipei City 10048, Taiwan



ISSN 1023-9855



Vol.32 No.3 June 2017

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## Thoracic Medicine

The Official Journal of Taiwan Society  
of Pulmonary and Critical Care Medicine

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## Thoracic Medicine

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# Weekly Hospital-Based Pulmonary Rehabilitation for Chronic Obstructive Airway Disease Maintains Exercise Capacity and Reduces Hospitalization

Chung-Shu Lee\*, Fu-Tsai Chung\*, Shu-Chuan Ho\*,\*\*, Meng-Heng Hsieh\*, Yueh-Fu Fang\*, Te-Fang Sheng\*, Li-Fei Chen\*, Wen-Ching Jao\*, Horng-Chyuan Lin\*

**Introduction:** This retrospective study aimed to evaluate the effects of a supervised, weekly, hospital-based pulmonary rehabilitation (PR) program on exercise capacity and clinical outcome in patients with chronic obstructive airway diseases (COAD) in a tertiary-care hospital in Taiwan.

**Methods:** Eighty-four COAD patients were divided into PR (n=42) or non-PR (n=42) groups. Subjects in the PR group regularly took part in a once-a-week rehabilitation program in the hospital for a period of 12 months. Pulmonary function was measured and 6-minute walk tests were given every 3 months. Total duration and time of hospitalization and emergency room (ER) consultation were analyzed.

**Results:** There was no demographic difference between the 2 groups. During the study period, the 6-minute walk distance increased in the PR group (from 402.5±18.3 to 410.4±17.8 meters), but significantly decreased in the non-PR group (from 430.7±12.8 to 376.0±24.9 meters,  $p<0.05$ ). Forced vital capacity was significantly higher in the PR group at 6 and 12 months, compared to the non-PR group. Hospital admissions and length of stay were significantly decreased in the PR group compared to the non-PR group (0.29±0.55 vs. 0.64±1.02 visits and 1.88±4.16 vs. 6.71±14.82 days, respectively,  $p<0.05$ ). Subjects in the PR group also had a lower rate and duration of ER visits than those in the non-PR group (0.24±0.53 vs. 0.93±1.67 visits and 0.36±0.88 vs. 2.12±4.17 days, respectively,  $p<0.05$ ).

**Conclusion:** Weekly hospital-based PR can maintain functional exercise capacity and improve pulmonary function in COAD patients. Hospital and ER visits and length of stay were also reduced. (*Thorac Med* 2017; 32: 115-124)

Key words: hospital-based pulmonary rehabilitation, chronic obstructive airway diseases, exercise capacity, hospitalization, pulmonary function

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## 對於慢性阻塞性氣道疾病者每周以醫院為基礎的肺部復健 來維持運動容量及減少住院

李忠恕\* 鍾福財\* 何淑娟\*\*,\*\* 謝孟亨\* 枋岳甫\* 盛德芳\*  
陳麗妃\* 饒文琴\* 林鴻銓\*

**前言：**這個在台灣三級照護醫院的回溯性研究，目標在評估一個每周以醫院為基礎的監督型肺部復健計畫，對於慢性阻塞性氣道患者的運動容量和臨床表現。

**方法：**84 位慢性阻塞性氣道患者分成復健組 (PR) 42 人和非復健組 (non-PR) 42 人。復健組中患者接受復健計畫達 12 個月。每三個月肺功能和六分鐘走路測驗會進行一次檢測。另外，將分析全部的住院時間和急診會診。

**結果：**在肺部復健計畫期間，在復健組六分鐘走路測驗中的距離是維持著 (從  $402.5 \pm 18.3$  到  $410.4 \pm 17.8$  公尺)，但非復健組則明顯下降 (從  $430.7 \pm 12.8$  至  $376.0 \pm 24.9$  公尺,  $p < 0.05$ )。就用力肺活量 (Forced vital capacity, FVC) 而言，在六個月和十二個月時復健組較非復健組大。PR 的每人每年住院次數和住院天數明顯地比 non-PR 減少 (分別為  $0.29 \pm 0.55$  vs.  $0.64 \pm 1.02$  次和  $1.88 \pm 4.16$  vs.  $6.71 \pm 14.82$  天,  $p < 0.05$ )。相較於 non-PR，觀察的 PR 病人有較低的每人每年急診就醫次數和較少的急診天數 (分別為  $0.24 \pm 0.53$  vs.  $0.93 \pm 1.67$  次和  $0.36 \pm 0.88$  vs.  $2.12 \pm 4.17$  天,  $p < 0.05$ )。

**結論：**在慢性阻塞性氣道患者中，以每周醫院為基礎的肺部復健能維持功能性運動容量和改善肺功能。同時，醫院和急診的就醫次數和住院天數也減少。(胸腔醫學 2017; 32: 115-124)

**關鍵詞：**醫院為基礎的肺部復健，慢性阻塞性氣道疾病，運動容量，住院，肺功能

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# Tuberculous Abscess of the Anterior Chest Wall: Report of 2 Cases

Li-Liang Chuang\*, Jen-Jyh Lee\*,\*\*, Chih-Bin Lin\*,\*\*

Tuberculosis (TB) usually involves the lungs, which is the site of about 90% of mycobacterial infection. TB of the chest wall is a rare entity. Herein, we reported 2 cases of TB of the chest wall presenting as an abscess without intrapulmonary involvement. Computerized tomography of the thorax showed anterior chest wall abscess without evidence of underlying lung or pleural disease. Sputum examination revealed negative acid-fast bacilli in the smear and TB culture. Both patients were diagnosed by surgical pathology and tissue culture, and were treated with complete resection combined with anti-tuberculous therapy. (*Thorac Med* 2017; 32: 125-129)

Key words: chest wall abscess, tuberculosis

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## 前胸壁結核菌膿瘍一病例報告

莊立良\* 李仁智\*\*,\*\* 林智斌\*\*,\*\*

結核病是受結核桿菌感染而引起的，主要以影響肺部的一種疾病，約佔全部百分之九十，而胸壁的侵犯是較罕見的一類。在本文中，我們報導了兩個前胸壁結核膿瘍的案例，病患的胸部電腦斷層掃描顯示前胸壁膿瘍，並無伴隨其他肺部或肋膜疾病。痰液抹片與培養皆為陰性。病患經過手術切除，由病理組織培養證實為結核菌感染，最後服用抗結核藥物治療完全治癒。(胸腔醫學 2017; 32: 125-129)

關鍵詞：胸壁膿瘍，結核菌

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# Tracheal Diverticulum Presenting as Long-Term Hoarseness: Case Report and Literature Review

Cheng-Che Tu, Wen-Hu Hsu

Tracheal diverticulum is a rare disease entity, usually found in asymptomatic patients, or those presenting with cough, dyspnea, and sometimes, dysphagia. Tracheal diverticula are classified as congenital or acquired based on their anatomic position and characteristics. Congenital diverticula are usually smaller, located 4 or 5 cm below the vocal cord. The acquired form is larger, presents in adulthood, typically protrudes from the right posterolateral wall of the trachea, and has a wider opening, if any. On histologic examination, tracheal diverticula have respiratory mucosa only, without components of cartilage or smooth muscle. The association between chronic obstructive pulmonary disease and tracheal diverticula is still being debated. Cases of recurrent laryngeal nerve paralysis and hoarseness caused by tracheal diverticula, with full recovery after resection, have been reported previously. If medical treatment of patients with symptomatic tracheal diverticulum fails, surgical resection is a feasible option.

We report a rare case of tracheal diverticulum that presented with hoarseness, and review related published articles. Although relatively rare, tracheal diverticulum should be included in the differential diagnosis of hoarseness. (*Thorac Med* 2017; 32: 130-135)

Key words: tracheal diverticulum, hoarseness, chronic obstructive pulmonary disease

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## 以聲音嘶啞表現的氣管憩室

杜承哲 許文虎

氣管憩室是一少見的疾病，病患可能無症狀，或以咳嗽、呼吸急促或有時以吞嚥困難表現。氣管憩室可依據其解剖學常見位置及其他特徵，區分為先天型及後天型。先天型之氣管憩室通常較小，常位在聲帶下方四到五公分處。後天型的可能較大，在成年時表現，通常從氣管的右後側方突出，如有開口，則具有較寬的開口。在病理學檢查下，氣管憩室全部由呼吸道上皮所組成，並不含有軟骨或肌肉之成分。氣管憩室與慢性阻塞性肺病的關聯，現在仍有爭議。氣管憩室造成喉返神經之壓迫，並且造成聲音嘶啞，在接受手術後復原的案例曾被報導過。若內科治療不成功，外科治療為一可行之選項。

我們報告一位以聲音嘶啞表現的氣管憩室病患，以及文獻的回顧。雖然這樣的表現相當稀少，但氣管憩室仍可以是聲音嘶啞的鑑別診斷之一。( *胸腔醫學* 2017; 32: 130-135)

關鍵詞：氣管憩室，聲音嘶啞，慢性阻塞性肺病

# Fatal Salmonella-Infected Aneurysm of the Aortic Arch: A Case Report

Fu-Hsiung Yang, Chih-Feng Chian, Wann-Cherng Perng, Shih-Wei Wu

An infected arterial aneurysm is often caused by *Staphylococcus aureus* or *Salmonella* species, and involvement of the aorta is a rare but life-threatening condition. The mortality rate is very high in those without surgical treatment. The typical presentation of an infected aneurysm is based on its location, whether it is in a superficial location (e.g., common femoral artery, a painful, pulsatile mass with fever) or is a deeper vessel (e.g., aorta, fever with or without blood-tinged sputum). Because of the insidious onset, symptoms and signs could occur after rupture of the aneurysm. Here, we describe a fatal case of infected aneurysm of the aortic arch mimicking pneumonia and caused by *Salmonella* group D. (***Thorac Med* 2017; 32: 136-141**)

Key words: infected aneurysm of the aortic arch, *Salmonella*

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## 非傷寒性沙門氏桿菌感染之致命性主動脈弓血管瘤： 病例報告

楊福雄 簡志峰 彭萬誠 吳世偉

感染性動脈瘤 (infected aneurysm) 常是由金黃色葡萄球菌 (*Staphylococcus aureus*) 或非傷寒沙門氏桿菌屬 (*Salmonella* species) 所引起的感染性血管瘤。其中的主動脈血管瘤是罕見且常致命的併發症，症狀以非特異性的胸痛、血痰、發燒來表現，甚至有些直到血管瘤破裂才發現，故死亡率很高，尤其是未作外科治療者死亡率更高。因此，即時的診斷與處置相當重要。我們的案例報告是一位 59 歲男性，有糖尿病及高血壓病史，因發燒和咳嗽帶有血絲痰至本院急診室求治，經影像學評估可能是感染性主動脈瘤，住院後給予廣效型抗生素治療及會診心血管外科醫師做手術治療的評估；但是不久之後突然心臟停止，經過急救後，病人仍然死亡。死亡後其生前所作之血液培養長出沙門氏桿菌 (*Salmonella* group D)。( *胸腔醫學* 2017; 32: 136-141)

關鍵詞：感染性主動脈弓血管瘤，非傷寒性沙門氏桿菌

# Three Metachronous Primary Malignancies: A Case Report and Literature Review

Ying-Tang Fang\*, Kuo-Tung Huang\*, Chin-Chou Wang\*, \*\*, \*\*\*

A 63-year-old male who had been diagnosed as having esophageal squamous cell carcinoma (T1N0Mx post- endoscopic submucosal dissection) in 2011 presented with a left soft palate mass in 2012. Biopsy of the oral mucosa was performed and the pathology showed well-differentiated squamous cell carcinoma. This patient presented to Chang Gung Memorial Hospital in 2014 with blood-tinged sputum and progressive dyspnea. Initial chest x-ray showed right upper lobe consolidation. Chest CT examination revealed right upper lobe consolidation with a suspicious 6cm infiltrative mass invading the right hilum and mediastinum. Multiple liver nodules and masses in both lobes of the liver were also noted. Bronchoscopy examination with tissue biopsy for pathologic study revealed small cell carcinoma of the bronchus. Echo-guided fine needle aspiration for the right liver lobe tumor was performed and the pathology study showed small cell carcinoma, metastatic. The initial approach to patients with suspected lung cancer is based on the study results of patients with non-small cell lung cancer. In general a few things need to be considered, including selecting a biopsy site and obtaining an adequate sample for microscopic examination. Immunohistochemical and genetic analyses are necessary for confirmation of the diagnosis. Aggressive tissue biopsy for pathology study may increase the rate of diagnosis for double, or even triple primary malignancies. More precise diagnosis will provide more treatment choices. (*Thorac Med* 2017; 32: 142-149)

Key words: metachronous primary malignancies, esophageal squamous cell carcinoma, small cell carcinoma

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## 三重異時性多原發惡性腫瘤：病例報告與文獻回顧

方映棠\* 黃國棟\* 王金洲\*,\*\*,\*\*\*

一位於西元 2011 診斷為食道鱗狀上皮細胞癌的 63 歲男性 (T1N0Mx 經內視鏡黏膜下切除) 於西元 2012 年因發現左軟顎腫塊前來就診，軟顎黏膜病理切片診斷為分化鱗狀上皮細胞癌。於西元 2014 年病患以咳血及漸進性呼吸困難為表現，前來高雄長庚紀念醫院求診。胸部 X 光片發現右上肺葉實質化，進一步的電腦斷層檢查發現右上肺葉腫塊合併多發性肝結節。本院為病患安排了支氣管鏡檢查合併腫瘤活檢切片，針對肝腫瘤則進行超音波導引細針穿刺術進行活檢切片，病理切片報告診斷為原發性肺小細胞癌合併肝轉移。針對疑似肺癌患者初始的評估診斷方法是基於先前非小細胞肺癌患者的研究結果。一般來說有幾件事情需要考慮，其中包括活檢部位的選擇，是否獲得足夠的鏡檢樣本。必要時免疫組織染色和遺傳分析是診斷確認的工具。針對病理切片檢查所採取的積極侵入性組織活檢可以提高雙重甚至三重原發惡性腫瘤的診斷率，更精確的診斷將提供更多的治療選擇。( *胸腔醫學* 2017; 32: 142-149)

關鍵詞：異時性多原發惡性腫瘤，食道鱗狀上皮細胞癌，小細胞癌

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# A Rare Case of Cold Abscess in the Anterior Chest Wall

Kai-Yu Hsiao\*, \*\*, Chung-Ping Hsu\*\*, Ta-Wei Pu\*\*\*, Chih-Hung Lin\*\*

Primary tuberculous abscesses (also called “cold abscesses”) of the chest wall are rare and constitute less than 10% of skeletal extrapulmonary tuberculosis cases. Tuberculosis of the chest wall usually presents as an enlarged and occasionally painful mass in the chest wall. Cases of tuberculous abscess of the anterior chest wall are rarely reported in the literature. We reported a rare case of tuberculous abscess of the anterior chest wall in a 64-year-old man who presented with painful swelling in the left chest region. Physical, imaging, and histological examinations led to a diagnosis of tuberculous chest wall lesion. Complete excision of the cold abscess and partial resection of the left 6<sup>th</sup> rib were performed. During surgery, 150 mL of purulent fluid was found in the cyst. The patient was stable postoperatively and received anti-tuberculosis medication. Cold abscess of the anterior chest wall is difficult to diagnose preoperatively and may be confused with secondary bone metastasis, pyogenic abscess, chondroma, multiple myeloma, lymphoma, or infectious diseases such as actinomycosis. Complete excision of the abscess of the chest wall and of the invaded structures is our preferred approach to achieve *en bloc* resection. When a chest wall tumor with a cystic lesion and homogenous fluid content is encountered, cold abscess should be suspected. (*Thorac Med* 2017; 32: 150-156)

Key words: tuberculosis, cold abscess, chest wall

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## 罕見的前胸壁冷膿瘍

蕭凱宇<sup>\*,\*\*</sup> 徐中平<sup>\*\*</sup> 浦大維<sup>\*\*\*</sup> 林志鴻<sup>\*\*</sup>

胸壁的肺外結核感染是個罕見的侵犯區域，臨床上常常以逐漸長大的胸壁腫瘤或者胸痛來表現，但是之前的文獻記載對於肋骨的肺外結核感染並不多見。

我們報告一個不常見的胸壁冷膿瘍的病例，包含病人臨床症狀、安排檢查的思路邏輯、後續的影像發現及手術切除的預後。胸壁冷膿瘍是個難以在影像學上診斷的疾病，與一般的細菌感染、放射菌感染、軟骨瘤、淋巴瘤、多發性骨髓瘤、骨轉移性腫瘤皆有相似的地方。完整的手術切除加上後續的抗結核菌藥物治療是我們推薦的選擇。因此外科醫師要把胸壁冷膿瘍列為一個鑑別診斷，才能給病人最適當的治療。  
(*胸腔醫學* 2017; 32: 150-156)

關鍵詞：肺外結核，胸壁，冷膿瘍

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