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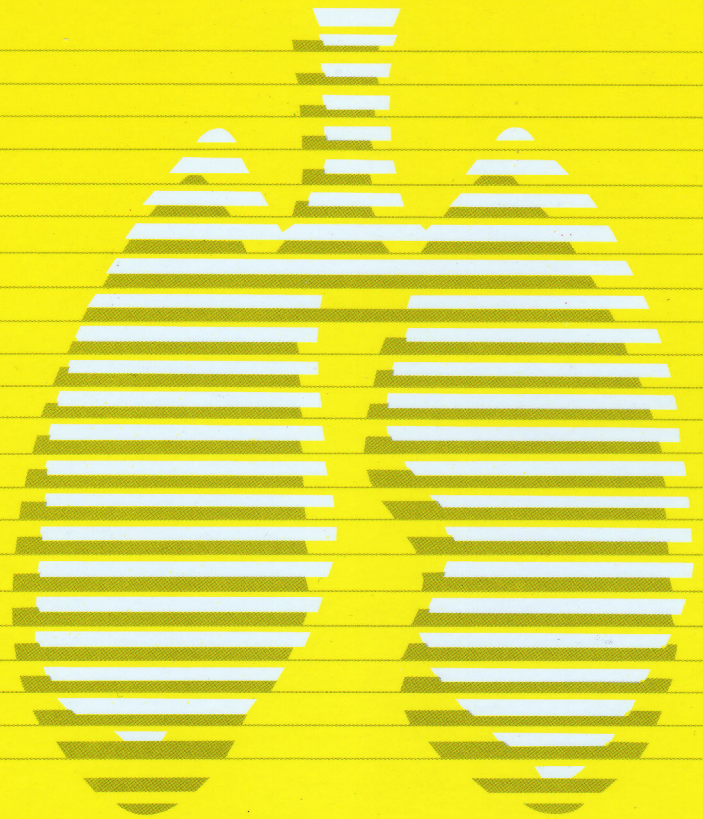

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原著

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Orginial Articles

Case Reports

Diagnostic Yield of Endobronchial Ultrasound-Guided Transbronchial Biopsy in Peripheral Pulmonary Lesions

Jiun-Ting Wu, Chao-En Huang, Yu-Feng Wei, Chien-Tung Chiu, Yung-Fa Lai

Objective: Endobronchial ultrasound (EBUS) has emerged as a new diagnostic tool that allows bronchoscopists to see beyond the airway. The radial-type miniature probe can localize peripheral pulmonary lesions (PPLs) prior to transbronchial biopsy (TBB). The purpose of this retrospective study was to evaluate the factors affecting the diagnostic yield of lung lesions using EBUS-guided bronchoscopic examinations performed by highly experienced bronchoscopists.

Methods: From 2009 to 2010, 144 patients with pulmonary lesions that were beyond the segmental bronchus received EBUS examinations at E-DA Hospital. Their medical records were reviewed and analyzed retrospectively.

Results: Pulmonary lesions were found in 120 patients (83.3%) using EBUS. Lesion size was a determining factor for the visibility of the PPLs. A definitive diagnosis was established in 114 of the 120 patients. The diagnostic rate of EBUS-TBB in EBUS-visible lesions was 82.4% (94/114). The overall diagnostic yield of EBUS-guided bronchial examinations was 65.3% (94/144). Binary logistic regression analysis revealed that a lesion size larger than 3 cm, the probe within the lesion, and the lesion located in the left upper lobe relative to the right lower lobe were independent predictors of diagnostic yield (p=0.029, 0.029 and 0.036, respectively).

Conclusions: Lesion size is a significant factor influencing the visibility of PLLs. The lesion size, the probe position and the lesion location (left upper lobe relative to the right lower lobe) were independent predictors of diagnostic yield by EBUS-guided bronchoscopic examination. ***(Thorac Med 2012; 27: 318-326)***

Key words: endobronchial ultrasound (EBUS), transbronchial biopsy (TBB), peripheral pulmonary lesions (PPLs)

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支氣管內超音波導引經支氣管切片診斷肺部周邊病灶

吳俊廷　黃照恩　魏裕峰　邱建通　賴永發

前言：支氣管內超音波（Endobronchial ultrasound, EBUS）的臨床應用，讓支氣管鏡檢查產生新的進展。藉由幅射型微小探頭（radial-type mininature probe）定位肺部周邊病灶，有助於導引經支氣管切片，但診斷率會因為操作者經驗而影響。本研究的目的是分析 EBUS 在具有豐富經驗者的操作下，導引經支氣管切片診斷肺部周邊病灶的影響因子。

方法：將 2009 年至 2010 年間，所有於本院因肺部周邊病灶接受 EBUS 檢查的病患，進行回溯性病歷及影像資料分析。

結果：研究期間共 144 位病患因肺部周邊病灶接受 EBUS 檢查，120 位（83.3%）可得著 EBUS 影像，病灶大小是主要決定因子。在所有得到最後診斷的 131 位病患中，則有 114 位可得 EBUS 影像，94 位藉由 EBUS 導引經支氣管切片，直接得確切診斷。因此，當 EBUS 可見病灶時，診斷率為 82.4%（94/114）。就所有接受 EBUS 檢查的病患而言，整體診斷率為 65.3%（94/144)。二項式邏輯迴歸分析（Binary logistic regression analysis）顯示，病灶大於 3 公分相較小於等於 3 公分、EBUS 探頭置於病灶內相較於鄰接病灶、及病灶位於左上葉相較於右下葉，是影響 EBUS 導引經支氣管切片診斷率的獨立影響因子（p=0.029, 0.029 and 0.036）。

結論：就肺部周邊病灶而言，病灶大小是影響可否得著 EBUS 影像的決定因子。病灶大小、EBUS 探頭位置、及病灶位於左上葉相較於右下葉，則是影響 EBUS 導引經支氣管切片診斷率的獨立影響因子。
(胸腔醫學 ***2012; 27: 318-326)***

關鍵詞：支氣管內超音波，經支氣管切片，肺部周邊病灶

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Evaluating the Validity of Serum Neopterin in the Diagnosis of Pulmonary Tuberculosis Infection with Different Severities

Wen-Cheng Chao*,**, Ying-Hsun Wu***, Ruay-Ming Huang****, Shun-Tien Chien***

Background: Neopterin, produced by macrophages in tuberculosis (TB) infection, is still rarely used in clinical practice because of the poor validity. No study has been conducted to evaluate its efficacy under different clinical conditions. In this study, we aimed to investigate the role of serum neopterin in pulmonary TB infection of different severities.

Materials and Methods: We prospectively enrolled culture-proved pulmonary TB patients attending a TB referral hospital in southern Taiwan, and collected their serum for analysis.

Results: In all, 78 TB patients and 20 healthy controls were enrolled; 42 (54%) patients had severe TB, defined as sputum acid-fast stain (AFS) above 1+ and 36 (46%) had mild TB with AFS below or equal to 1+. In the severe TB patients, serum neopterin ($p<0.005$) and interferon-γ ($p<0.05$) were higher than in the controls, but tumor necrosis-α, monocyte chemotactic protein-1, and interleukine-6 were similar to the controls. The 5 tested biomarker levels were similar between the mild TB cases and the controls, so the poor validity in this patient population was not surprising. We found that serum neopterin has better accuracy in diagnosing severe TB than the other biomarkers.

Conclusion: Serum neopterin is an accurate diagnostic biomarker in severe pulmonary TB cases, but not in mild TB cases. ***(Thorac Med 2012; 27: 327-337)***

Key words: neopterin, tuberculosis, biomarker, severity

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評估以血清 Neopterin 在不同嚴重度肺結核患者之診斷效度

趙文震 *,**　吳盈勳 ***　黃瑞明 ****　簡順添 ***

背景：Neopterin 是巨噬細胞所分泌之生物標誌，研究已證實在結核感染會上升但因整體診斷效度不佳鮮少有研究討論其在不同臨床狀況時的應用，本研究旨在探討血清中 Neopterin 在不同嚴重度肺結核患者之診斷效度。

方法：我們前瞻性收案 2010 年 1 月至 2010 年 12 月間因痰液培養確診結核而入住胸腔病院之肺結核患者，我們收集患者血液並分析血清中 Neopterin 及相關細胞激素和臨床狀況之間的相關性。

結果：我們共收集 78 位不同嚴重度肺結核患者及 20 位健康對照組血清並檢測其生物標誌，我們以痰液抗酸染色價數區分患者嚴重度，42 位（54%）一價以上定義為嚴重結核；36 位（46%）抹片陰性或是一價的患者定義為輕度結核。我們發現相對於健康人，血清中巨噬細胞相關之細胞激素如 Neopterin（p<0.005）及 Interferon-γ（p<0.05）在嚴重結核個案會明顯升高，相對地非巨噬細胞相關細胞激素如 TNF-α、IL-6 及局部作用的單核細胞趨化蛋白 -1（MCP-1）則無明顯差異。另外輕度結核患者上述生物標誌之血清濃度皆無明顯上升這應該也是生物標誌應用一般肺結核時診斷效度不佳的原因。於變化並不能早期區分測抹片陽性患者培養陰轉與否。最後我們證實 Neopterin 和 IFN-γ 之間的相關強度並不強（r=0.324, p=0.005）所以應有其獨立於 IFN-γ 的意義，最後我們分析上述五種生物標誌後發現 Neopterin 在嚴重結核個案有最好的診斷效度。

結論：血清中 Neopterin 濃度在嚴重肺結核個案具良好的診斷效度，在輕度肺結核個案其診斷效度不佳。*(胸腔醫學 **2012; 27: 327-337**)*

關鍵詞：Neopterin，結核，生物標誌，嚴重度

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Chronic Obstructive Pulmonary Disease Assessment Test (CAT) Correlated Well with Modified Medical Research Council (mMRC) Dyspnea Scale

Ming-Ju Tsai*,***, Hsiu-Ping Huang**, Cheng-Yuan Wang*, Chih-Jen Yang*,***,****, Chau-Chyun Sheu*,*****, Jen-Yu Hung*,****, Tung-Heng Wang*,**,*****, Ming-Shyan Huang*,***,****

Background: Chronic obstructive pulmonary disease (COPD) is among the leading causes of disability. The COPD Assessment Test (CAT) has been advocated recently as a good health status measurement tool for COPD patients in daily practice. Both the CAT and the Modified Medical Research Council (mMRC) Dyspnea Scale were recommended for the assessment of COPD symptoms in the 2011 Global Initiative for Chronic Obstructive Lung Disease (GOLD) report. However, little evidence to date has shown a correlation between these 2 measurements.

Methods: Patients more than 40 years of age, with a diagnosis of COPD and a smoking history of more than 10 pack years were prospectively enrolled from the chest clinic of a medical center in Taiwan. The CAT score and mMRC grades were recorded on the first visit and then every 8 weeks for 6 months. Spearman's correlation coefficients (ρ) between the CAT scores and mMRC grades recorded on the same visit were calculated.

Results: In total, 36 patients with COPD were enrolled in this study. Five patients were excluded due to early withdrawal, and the data of the remaining 31 patients were analyzed. The CAT score trended toward a weak correlation with the mMRC grade on the first visit, but was highly correlated with the mMRC grade on the next 3 visits (weeks 8, 16, and 24) ($\rho>0.7$; $p<0.05$). The correlation was better in patients with a more severe airflow limitation (GOLD class 3 and 4). In most cases (83%), the CAT score and mMRC grade indicated the same level of symptoms, as defined in the 2011 GOLD report.

Conclusions: Although the small sample size may have impacted the results, we found that the CAT score had a good correlation with the mMRC grade, especially in patients with a more severe airflow limitation and on follow-up visits. Therefore, as a simple tool, the mMRC scale may be used as a substitute for the CAT in busy clinics in Taiwan. This pilot study may provide preliminary evidence to support the clinical application of the CAT or mMRC scale per

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the 2011 GOLD report in Taiwan. Further studies are needed to clarify the application of the CAT in a clinical setting in Taiwan. ***(Thorac Med 2012; 27: 338-348)***

Key words: chronic obstructive pulmonary disease, Chronic Obstructive Pulmonary Disease Assessment Test, Medical Research Council grade

慢性阻塞性肺病評估問卷（CAT）與修改版醫學研究委員會（mMRC）呼吸困難程度計分有良好相關性

蔡明儒 *,***　黃脩評 **　王程遠 *　楊志仁 *,***,****　許超群 *,*****
洪仁宇 *,****　王東衡 *,**,*****　黃明賢 *,***,****

前言：慢性阻塞性肺疾病是造成失能的主要疾病之一。近來，慢性阻塞性肺病評估問卷（CAT）被推廣在日常診療中用於評估病人的健康狀況。2011 年版 GOLD 指引建議使用 CAT 及修改版醫學研究委員會呼吸困難程度計分（mMRC）來評估慢性阻塞性肺疾病的症狀。不過，至今鮮有證據顯示這兩個評估工具的結果有良好的相關性。

方法：本研究於台灣南部的一家醫學中心胸腔內科門診招募四十歲以上且有抽菸史（大於十包 - 年）的慢性阻塞性肺疾病病患。在初次收案時及之後每八週回診（三次回診）時，紀錄 CAT 各項問題之分數及 mMRC 之分數。計算同次門診之 CAT 各項分數及總分與 mMRC 分數的斯皮爾曼氏相關係數。

結果：本研究共收錄 36 名病患，有 5 名中途退出。分析剩下的 31 人之資料顯示 CAT 總分與 mMRC 分數在初次收案門診時有一個弱相關的趨勢，而於之後的三次追蹤時達到顯著的高度相關（$\rho>0.7$; $p<0.05$）。在有較嚴重氣道阻塞（GOLD 第 3 及第 4 類）的病人，這相關性會比較好。依據 2011 年版 GOLD 指引，在大多數（83%）的狀況下，CAT 分數與 mMRC 分數會將病人分到相同的症狀等級中。

結論：雖然這個研究的樣本數很少，不過仍然顯現 CAT 總分與 mMRC 分數有很好的相關性，尤其在有較嚴重氣道阻塞的病人以及用在追蹤的時候。因此，在台灣地區繁忙的門診作業中可以使用 mMRC 這種簡單的量表來取代 CAT。這項試驗性的研究可以提供在台灣地區依照 2011 年版 GOLD 指引於臨床上使用 CAT 及 mMRC 的初步證據支持。期待有更進一步的研究來探討在台灣地區使用 CAT 於臨床照護的相關議題。*(胸腔醫學 **2012; 27: 338-348**)*

關鍵詞：慢性阻塞性肺病，慢性阻塞性肺病評估問卷，醫學研究委員會呼吸困難程度計分

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Chronic Obstructive Pulmonary Disease with Acute Respiratory Failure and an Incidental Finding of Tracheobronchomalacia: A Case Report

Li-Chung Chiu*, I-Hao Su**, Kuo-Chin Kao*, Chien-Ying Liu*, Cheng-Ta Yang*, Chien-Da Huang*

Tracheobronchomalacia (TBM), characterized by more than 50% expiratory reduction of the cross-sectional area of the trachea and bronchus, may cause respiratory failure. Its etiology may be congenital or acquired. Acquired TBM is reportedly associated with endotracheal tubes and tracheostomy, closed chest trauma, lung resection, radical neck dissection, radiation therapy, chronic obstructive pulmonary disease (COPD), relapsing polychondritis, paratracheal vascular abnormality, and chronic or recurrent infection. Herein, we report a 50-year-old male COPD patient with TBM resulting in hypercapnic respiratory failure. Flow-volume loop, bronchoscopy and 4-dimensional dynamic volume computed tomography (4D CT) of the lung confirmed the diagnosis of TBM. This case report broadens the understanding of the contribution of expiratory central airway collapse to COPD morbidity. Clinicians should be alert to the possibility of TBM when acute respiratory failure is noted in COPD patients. ***(Thorac Med 2012; 27: 349-356)***

Key words: tracheobronchomalacia, chronic obstructive pulmonary disease, acute respiratory failure, four-dimensional dynamic volume computed tomography

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於慢性阻塞性肺疾病併發急性呼吸衰竭病人意外發現支氣管軟化症：一個病例報告

邱立忠 *　蘇奕豪 **　高國晉 *　劉劍英 *　楊政達 *　黃建達 *

支氣管軟化症是支氣管在吐氣時管腔狹窄超過 50% 且可能造成呼吸衰竭。先天或後天因素都可能造成支氣管軟化症。後天因素造成支氣管軟化症和氣管內管、氣切、封閉式胸部外傷、肺切除、廣泛性頸部切除手術、放射治療、慢性阻塞性肺疾病、再發性多處軟骨炎、氣管旁血管異常和慢性或反覆性感染有關。我們報告一位 50 歲慢性阻塞性肺疾病男性患者因支氣管軟化症併發高二氧化碳呼吸衰竭。肺功能，氣管鏡和 4D 動態容量肺部電腦斷層診斷為支氣管軟化症。本篇案例報告使我們更加了解吐氣時呼吸道塌陷對慢性阻塞性肺疾病造成之影響。當慢性阻塞性肺疾病患者併發急性呼吸衰竭時，臨床醫師需考慮支氣管軟化症之可能性。*(胸腔醫學 **2012; 27: 349-356**)*

關鍵詞：支氣管軟化症，慢性阻塞性肺疾病，急性呼吸衰竭，4D 動態容量肺部電腦斷層

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Rare Metastases of Lung Adenocarcinoma to the Uterine Cervix and Retroperitoneal Lymph Nodes Resulting in Obstructive Uropathy, with a Good Response to Gefitinib

Jiun-Rung Chen*, Tsung-Ying Yang*, Gee-Chen Chang*,**,***,****

Lung adenocarcinoma with metastasis to the uterine cervix is rare, as is ureteral obstruction attributed to metastasis from lung adenocarcinoma. We report a case of lung adenocarcinoma with metastases to both the uterine cervix and retroperitoneal lymph nodes resulting in obstructive uropathy. We used immunohistochemical staining, the epidermal growth factor receptor gene and the clinical course to differentiate lung adenocarcinoma from cervical adenocarcinoma. An excellent response was achieved with first-line gefitinib treatment for 3 months -- both the hydronephrosis and the metastatic cervical tumor had almost disappeared. This is the first case report of metastatic retroperitoneal lymphadenopathy with ureteral obstruction resulting from lung adenocarcinoma treated effectively and safely with gefitinib. ***(Thorac Med 2012; 27: 357-362)***

Key words: lung adenocarcinoma, uterine cervical metastasis, obstructive uropathy, thyroid transcription factor-1, gefitinib

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罕見的肺腺癌轉移至子宮頸及後腹腔淋巴結併阻塞性尿路病變，對 gefitinib 治療反應良好

陳俊榮 *　楊宗穎 *　張基晟 *,**,***,****

肺腺癌很少轉移至子宮頸。此外，肺腺癌也很少造成輸尿管阻塞。我們報告了一個肺腺癌轉移至子宮頸及後腹腔淋巴結併阻塞性尿路病變的個案。我們應用了免疫組織化學染色、表皮生長因子接受器基因及臨床病程來區分是肺腺癌或是子宮頸腺癌。在使用第一線 gefitinib 治療三個月後產生了極佳的反應。水腎及子宮頸轉移性腫瘤幾乎消失了。這是第一個個案報告描述 gefitinib 有效且安全地治療了肺腺癌轉移至後腹腔淋巴結併輸尿管阻塞。*(胸腔醫學 **2012; 27: 357-362**)*

關鍵詞：肺腺癌，子宮頸轉移，阻塞性尿路病變，甲狀腺轉錄因子 -1，愛瑞莎

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Pneumomediastinum as a Presentation of Perforated Sigmoid Diverticulitis – A Case Report

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Pneumomediastinum is a sign of aberrant air in the mediastinum. Most cases are caused by respiratory tract or esophageal injury, but rarely originate from perforation of an intestinal organ. We report a diabetic patient taking analgesic medication who presented with diffuse abdominal pain and radiographic findings of pneumomediastinum. The computed tomography of the abdomen and surgical pathology led to the diagnosis of perforated sigmoid diverticulitis. After reviewing the literature, we proposed an integrated algorithm as an adequate differential diagnostic process and document the reasons for delayed diagnosis of this rare presentation of perforated viscus. ***(Thorac Med 2012; 27: 363-369)***

Key words: pneumomediastinum, perforated sigmoid diverticulitis

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乙狀結腸憩室炎破裂導致之縱膈腔氣腫—病歷報告

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縱膈腔氣腫起因於異常空氣出現在縱膈腔組織內，於多數情況下是由呼吸道或食道損傷所引起，但少數是從腹腔腸道器官穿孔所導致。我們報告一位糖尿病患者，有服用止痛藥之病史，此次以瀰漫性腹痛之表現且胸部放射線檢查發現有縱膈腔氣腫。經腹部斷層掃描及病理診斷為乙狀結腸憩室穿孔。透過文獻審查，我們提出了一個整合之鑑別診斷流程，並提出兩個於此類病人中延誤正確診斷的理由。*(胸腔醫學 2012; 27: 363-369)*

關鍵詞：縱膈腔氣腫，乙狀結腸憩室穿孔

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Common Variable Immunodeficiency – A Case Report with Emphasis on the Diagnostic Clues and Treatment Response

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Common variable immunodeficiency (CVID) encompasses a group of heterogeneous conditions linked by a lack of immunoglobulin production and primary antibody failure. CVID has a broad range of clinical symptoms with the involvement of multiple organs, especially the respiratory system. The mean onset of symptoms in patients with CVID is in their 3rd decade of life. Given the complexity and rarity of the disease, the diagnosis of CVID is often delayed for a mean of 8.9 years. We herein report a 24-year-old female patient with CVID manifesting with migratory pneumonia, splenomegaly, and persistently elevated liver enzymes. The disease was suspected due to the presence of hypoglobulinemia, and confirmed by low serum levels of IgG, IgM, and IgA. Her splenomegaly was attributed to CVID-related lymphoproliferative disorder. The spleen regressed to normal size after intravenous immunoglobulin supplementation. This case emphasizes the need for a high index of clinical suspicion for CVID in patients presenting with recurrent sinopulmonary infections and/or an impaired capacity to produce specific antibodies in response to infection, such as chronic hepatitis C. Early diagnosis is needed to prevent significant morbidity and mortality and to improve the prognosis in these patients. ***(Thorac Med 2012; 27: 370-376)***

Key words: common variable immunodeficiency, hepatitis C, intravenous immunoglobulin, migratory pneumonia, splenomegaly

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常見性變異性免疫缺乏症—強調診斷線索及治療反應之病例報告

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常見性變異性免疫缺乏症代表一群變異性高的族群，他們無法製造免疫球蛋白並使原發性抗體失效。它有許多臨床症候，會影響多重器官特別是呼吸系統。常見性變異性免疫缺乏症發生年齡多在 30 歲上下，但因疾病複雜度，平均被延誤診斷時間長達 8.9 年。本文報告一 24 歲年輕女性有遊走性肺炎，脾腫大，和持續性肝指數異常，因實驗室檢查發現球蛋白指數低下，懷疑是常見性變異性免疫缺乏症，並經由 IgG、IgM、IgA 數目低下確診。此病人的脾腫大，懷疑和常見性變異性免疫缺乏症相關的淋巴增生疾病有關，且再經免疫球蛋白治療之後，脾腫大回復至正常大小。此臨床病例強調當病人有反覆性鼻竇與呼吸道感染，以及對於感染症無法產生相對應抗體，如 C 型肝炎時，應高度懷疑此病，早期診斷才可避免嚴重的後遺症並改善預後。*(胸腔醫學 **2012; 27: 370-376**)*

關鍵詞：常見性變異性免疫缺乏症，遊走性肺炎，脾腫大，靜脈注射型免疫球蛋白

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Disseminated *Penicillium marneffei* Infection in a Patient without HIV Infection: A Case Report

Chu-Yun Huang*, Tsan-Chieh Liao**, Lei-Chi Wang***, Chun-Ku Chen**,
Jia-Yih Feng*,****, Yu-Chin Lee*,*****

Penicillium marneffei infection is a fungal infection which often occurs in immunocompromised hosts, especially HIV-infected patients. Although both immunocompetent and immunocompromised patients can be infected, disseminated *Penicillium marneffei* is extremely rare in non-HIV patients. We report an HIV-negative patient who developed disseminated *Penicillium marneffei* infection that included the lung, lymph node, and bone, with the initial presentation of fever, night sweating, body weight loss and refractory pulmonary infiltrates. Grocott's Methenamine Silver stain-positive fungi were identified in specimens from transbronchial, lymph node and bone marrow biopsies. *Penicillium marneffei* was confirmed by fungal culture from sputum, bronchoalveolar lavage fluid, transbronchial lung biopsy, mediastinal lymph node biopsy, and bone marrow biopsy. After treatment with intravenous amphotericin B followed by oral itraconazole for 10 weeks, the clinical symptoms and pulmonary infiltrates resolved completely. ***(Thorac Med 2012; 27: 377-385)***

Key words: bone marrow, fever, non-HIV, *Penicillium marneffei*, pneumonia

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非愛滋病毒感染全身性馬爾尼菲青黴菌者之個案報告：一病例報告

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馬爾尼菲青黴菌是一種常發生在免疫不全宿主的黴菌感染，特別好發在 HIV 陽性的患者。雖然在免疫健全或是免疫不全的人都可能造成感染，全身性馬爾尼菲青黴菌卻很少發生在 HIV 陰性的病人。東南亞地區，包括台灣、泰國、印尼與大陸地區都屬於馬爾尼菲青黴菌的流行區。我們報告一位 HIV 陰性且無旅遊史的病人受到全身性馬爾尼菲青黴菌的感染，受影響部位包括肺部、淋巴結、和骨髓。一開始的症狀包括發燒、夜間盜汗、體重減輕和持續的肺部浸潤。我們從支氣管穿刺切片、支氣管肺泡沖洗液、淋巴結切片及骨髓切片可以發現 Grocott's Methenamine Slive（GMS）染色呈現陽性的酵母菌樣病原菌；此外從病患的痰液、支氣管肺泡沖洗液、經支氣管穿刺切片、縱膈腔淋巴切片及骨髓切片的黴菌培養均可培養出馬爾尼菲青黴菌。經針劑 amphotericin B 治療二星期及口服 itraconazole 十週治療後，病患的臨床症狀及肺部浸潤均有顯著改善。*(胸腔醫學 **2012; 27: 377-385**)*

關鍵詞：骨髓，發燒，HIV 陰性，馬爾尼菲青黴菌，肺炎

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Paroxysmal Sympathetic Hyperactivity: Two Case Reports

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Paroxysmal sympathetic hyperactivity (PSH) is a syndrome characterized by episodes of hyperthermia, diaphoresis, agitation, dystonia, and increased blood pressure (BP), respiratory rate (RR), and heart rate (HR). Most cases are found after brain injury, although a few cases have had no brain injury. The exact mechanism is still not clear, but PSH can be treated by opioids, gabapentin, benzodiazepines, centrally acting α-agonists, and β-antagonists, bromocriptine, and intrathecal baclofen, instead of anti-epileptics, antibiotics, or antipyretics, in most cases. Delayed diagnosis and management of PSH may increase morbidity and mortality. We present 2 cases and review the literature on PSH. Accurate diagnosis and appropriate treatment can reduce the number of ventilator days and shorten the hospital course, and even improve the clinical outcome. Therefore, the differential diagnosis and management of patients presenting with hyperthermia, dystonia, tachypnea, and tachycardia are very important in daily practice in the intensive care unit. ***(Thorac Med 2012; 27: 386-391)***

Key words: paroxysmal sympathetic hyperactivity, dystonia, hyperthermia, tachycardia, tachypnea

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陣發性交感神經過度活化：兩則病例報告

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陣發性交感神經過度活化（Paroxysmal sympathetic hyperactivity, PSH）是一種以陣發性的體溫增高、冒汗、躁動、肌肉張力異常、血壓變高、呼吸變快及心跳變快的症候群。絕大多數的病例報告都是在腦部損傷之後發生，只有少數病例沒有腦部損傷。明確的致病機轉到現在仍不清楚，大多數的病患對於嗎啡類、gabapentin、benzodiazepine、中樞作用 α- 致效劑與 β- 阻斷劑、bromocriptine 與脊髓腔內注射 baclofen 等藥物有效，而對一般抗癲癇藥物、抗生素或退燒藥效果較差，對陣發性交感神經過度活化的延遲診斷與處置可能會增加死亡率與罹病率，我們提出兩則病例報告並回顧陣發性交感神經過度活化相關文獻。正確的診斷與適當的處置能夠減少呼吸器使用天數與住院天數，甚至是預後，故對於加護病房內呈現體溫增高、肌肉張力異常、呼吸變快及心跳變快病人的鑑別診斷與處置是相當重要的。*(胸腔醫學* ***2012; 27: 386-391)***

關鍵詞：陣發性交感神經過度活化，肌肉張力異常，體溫增高，心跳變快，呼吸變快

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Hypersensitivity Pneumonitis Presenting as Fever of Unknown Origin – A Case Presentation and Review of the Literature

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Hypersensitivity pneumonitis (HP) is a pulmonary disorder with symptoms of fever, dyspnea and cough resulting from exposure to an antigen to which the subject has been previously sensitized. The clinical symptoms are very similar to pyogenic infection. Detailed history-taking and a high index of suspicion are mandatory in aiding the diagnosis of HP. Herein, we reported a patient with HP with the initial presentation of intermittent fever, general malaise, and body weight loss. Comprehensive surveys for infectious diseases, autoimmune diseases and malignancies were carried out at a local hospital and a medical center, and yielded negative results. Despite undergoing open lung biopsy, no definite diagnosis was made. Bronchoalveolar lavage (BAL) was done at our hospital and lymphocytic alveolitis was suggested by the cytological smear of the BAL fluid (BALF). Based on the clinical presentation, contact history, cytological findings of the BALF and pathological findings of lung biopsy obtained from other hospitals, HP was highly suspected. The patient underwent pulse therapy with methyprednisolone and maintenance with a low-dose steroid. Fever subsided gradually and the follow-up chest radiograph demonstrated marked regression of the pulmonary lesions. ***(Thorac Med 2012; 27: 392-400)***

Key words: hypersensitivity pneumonitis, fever of unknown origin, bronchoalveolar lavage

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以不明熱表現的過敏性肺炎：病例報告

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過敏性肺炎是一種因吸入過敏原後而引發一連串免疫反應導致的肺部疾病。臨床表現與感染性肺炎非常相似，都會出現發燒、咳嗽、呼吸困難等現象。臨床上的高度懷疑以及詳盡的病史詢問方能有效的獲得診斷，並且避免再次的接觸到過敏原而復發。我們提出一位過敏性肺炎以不明熱表現的患者。此病患起初的臨床表現為發燒、全身無力、體重減輕。經過在地區醫院和醫學中心的反覆住院，詳盡的進行感染性疾病、自體免疫疾病、惡性腫瘤方面的檢查仍無明確病因。甚至進行肺部外科病理檢查仍無診斷。我們進行了支氣管鏡肺泡沖洗術，在肺泡沖洗液的細胞學檢查中看到了明顯的淋巴球增多。並回溯了病患的接觸病史發現他工作時會接觸到鳥類排泄物。根據臨床症狀、接觸病史、肺泡沖洗液細胞學檢查、肺部外科病理標本等的結果，高度懷疑病患罹患過敏性肺炎。經由類固醇的治療過後，病患的發燒緩解了，影像學上肺部的病灶也消失了。*(胸腔醫學 **2012; 27: 392-400**)*

關鍵詞：過敏性肺炎，不明熱，支氣管肺泡沖洗術

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