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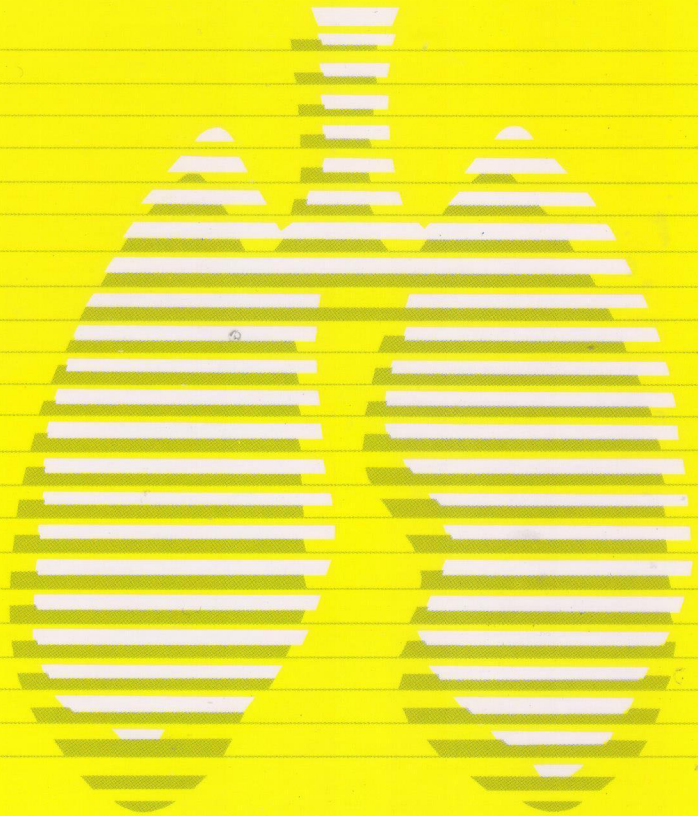

台灣胸腔暨重症加護醫學會

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原著

病例報告

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Orginial Articles

Case Reports

Use of Propofol and Midazolam for Adult ICU Patients Receiving Mechanical Ventilation in Taiwan: Subgroup Analysis of a Nationwide Population-based Study

Chien-Lung Hsiao, Yu-Jen Lee*, Chao-Chieh Cheng, Chih-Hung Lin, Yen-Kun Ko

Background: Intravenous sedatives like midazolam and propofol are commonly used in mechanically ventilated patients, but there is a lack of clinical data from adult intensive care units (ICU) in Taiwan.

Patients and Methods: Data from the National Health Insurance Research Database (NHIRD) for the years 2000-2006 was used to identify 23,104 mechanically ventilated ICU patients for enrolment. Data on the patients' identification numbers, gender, date of birth and prescription drugs dispensed were obtained from the NHIRD electronic data files. Exclusion criteria were the following: aged under 18 years, having received none or received more than 1 intravenous infusion of a sedative, ICU stay less than 24 hours, and weaning failure in the ICU. We examined the data on age, gender, type of sedatives, duration of mechanical ventilation, and length of ICU and hospital stays.

Results: Of the 5709 mechanically ventilated adult ICU patients included, 4080 (71.5%) were sedated with midazolam only, and the others with propofol only. There was a significant gender difference (males: 64.8%). The mean age of the midazolam group was older than that of the propofol group (63.2 vs. 58.0 years). Age had a positive correlation with duration of mechanical ventilation (r = 0.16) and length of ICU stay (r = 0.08). Patients were divided into 2 age groups (those <65 and those ≥65 years). The propofol group had a shorter duration of mechanical ventilation, shorter ICU stays in both age groups and shorter hospital stays in the younger age group. But for length of hospital stay in the older group, there was no difference between propofol and midazolam. Comparing the clinical outcomes of different age groups using the same sedative, a poorer outcome, but not a longer ICU stay, was found for the older group using propofol.

Conclusions: These results revealed that midazolam was more commonly used in mechanically ventilated adult ICU patients in Taiwan, and the mean age of the midazolam group was older than that of the propofol group. The propofol group had a shorter duration of mechanical ventilation and ICU stay than the midazolam group. However, there was no difference in hospital stay between those using 1 or the other sedative in the older group. The factors leading to this result further study. ***(Thorac Med 2011; 26: 309-315)***

Key words: sedation, propofol, midazolam, mechanical ventilation, adult intensive care unit

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台灣加護病房中使用呼吸器的成人病患使用導眠靜（midazolam）與普洛福；普帕芙（propofol）的情況：全國健保資料庫分析

蕭建隆　李友仁*　鄭兆傑　林志鴻　柯延昆

前言：靜脈注射Midazolam和propofol在臨床上經常於病人使用呼吸器時給予，但是目前缺乏在臺灣成人加護病房內使用情況的臨床資料。

方法：國民健康保險資料庫中（2000-2006年）共登錄有23,104位曾於加護病房使用呼吸器的病患。病患之身份識別碼、性別、出生日期和處方藥能從NHIRD電子數據檔案獲得。排除標準包括小於18歲的病患；沒有使用或使用超過一種以上靜脈內滴注鎮靜藥物；加護病房停留時間小於24小時以及無法在加護病房內脫離呼吸器之病患。我們取得病患之年齡、性別、使用鎮靜藥的種類、使用呼吸器的時間、加護病房照護的時間和整個住院的時間來進一步分析。

結果：本研究包含5709位在加護病房使用呼吸器的成年病患，而其中有4080（71.5%）病患使用midazolam；其他則使用propofol。這兩組病患都有顯著的性別差異（男性：64.8%）。使用midazolam組的平均年齡比propofol組大（63.2與58.0歲）。年齡與使用呼吸器的時間（$r = 0.16$)以及加護病房照護的時間（$r = 0.08$）有正相關。病患被分成兩個年齡組別（<65 & ≥65歲）來分析。結果發現使用propofol的病患與midazolam組比較，不管在那個年齡組別皆有較短的使用呼吸器時間以及加護病房照護的時間，而在住院時間方面只有在年紀較小的組別（<65歲）較短。但在年紀較大的組別（≥65歲），兩者無明顯差異。在使用相同的鎮靜劑情況下比較不同年齡組別的差異，只有在propofol組中加護病房照護的時間無差異，其餘皆顯示年紀較大的組別臨床預後較差。

結論：這些結果發現midazolam在臺灣加護病房使用呼吸器的成人病患來說是較常選擇的鎮靜藥物，而且選擇使用midazolam的族群平均年齡較大。同時也發現propofol組相對於midazolam組有較短的使用呼吸器時間及加護病房停留時間；但對於年紀大於65歲的病患，這兩種鎮靜藥物在住院時間的長短方面，兩者之間並無差異。未來仍需要相關研究進一步的了解原因。*(胸腔醫學* ***2011; 26: 309-315)***

關鍵詞：鎮靜作用，導眠靜，普洛福，普帕芙，呼吸器，成人加護病房

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Wegener's Granulomatosis: Pulmonary Manifestations in a Hospital-Based Study in Taiwan (1990-2009)

Shiang-Fen Huang, Chong-Chen Lu*, De-Feng Huang**, Kuei-Ying Su***, Kai-Huang Hsiao**

Objective: Wegener's granulomatosis (WG) is a rare disease among Southeast Asians and reports on the clinical manifestations are limited. The aim of this study was to demonstrate the clinical and pulmonary roentgenology characteristics of WG patients in a hospital-based study in Taiwan.

Methods: A retrospective review of patients with WG diagnosed from 1990-2009 at Taipei Veterans General Hospital was carried out. Patient features and image findings were analyzed.

Results: Fourteen males and 10 females were included. The mean age at diagnosis was 36.3 years, with a median follow-up time of 3 years. The most common manifestations at diagnosis were abnormal renal function (54%) and chronic paranasal sinusitis (46%). The most common pulmonary manifestation was granuloma (11/21, 52.3%) without (6/11, 54%) cavitation, followed by alveolar infiltrations. Sequential changes in pulmonary roentgenology or chest computed tomography after immunosuppressant treatment were observed, similar to the findings of previous investigations.

Conclusions: WG in Taiwan affects patients of all ages. Most patients were diagnosed with upper respiratory tract inflammation and nearly all patients experienced pulmonary manifestations during the course. The most common pulmonary manifestation was granuloma and the prognosis was poor. Clinical suspicion is needed for an early diagnosis of WG. ***(Thorac Med 2011; 26: 316-324)***

Key words: Taiwan, Wegener's granulomatosis

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韋格勒氏肉芽腫病患在肺部的影像表現

黃祥芬　盧崇正*　黃德豐**　蘇桂英***　蕭凱鴻**

前言：韋格勒氏肉芽腫病（Wegener's granulomatosis, WG）是一種罕見的疾病，多發生於緯度較高地區，亞洲地區的文獻報告很少。而本研究的目的在探討台灣地區WG的臨床特性和肺部表現。

方法：根據國際疾病分類診斷碼446.3和446.4篩選醫院內1990-2009年間的病患，經病歷閱讀後根據美國風濕免疫學會1990準則確診WG的病患，進行臨床資料的統計分析和影像判讀。

結果：研究期間共24位患者為確診WG疾病。病患主要分布於50歲以下（75%），男女比為1.4，C-ANCA陽性率為86.3%，小於50%的病患有合併其他共病症，主要侵犯的器官為腎臟（54%），上呼吸道（46%）及肺部（38%）。在影像學表現部分，肉芽腫（52.3%）是最常出現的影像學異常，其次為肺泡浸潤、毛玻璃樣病變及肺實質化病變（共22%）。

結論：韋格勒氏肉芽腫病在台灣的發生率較低，發生族群以年輕人以及男性比例較高。由於此疾病的預後較差，藉由本研究可以提供臨床醫師對於此疾病能有早期診斷的助益。***(胸腔醫學 2011; 26: 316-324)***

關鍵詞：韋格勒氏肉芽腫病，台灣

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Successful Treatment of a Patient with Severe Carbon Monoxide Intoxication Complicated with ARDS Using ECMO and HFO Ventilation

Chao-Hsin Huang*,**, Wann-Cherng Perng**, Chih-Feng Chian**,
Chen-Liang Tsai**, Kun-Lun Huang**

Carbon monoxide (CO) intoxication is a common and underestimated problem. We report a 39-year-old woman who was exposed to CO for more than 12 hours and presented in an unconsciousness state with acute pulmonary edema. Extracorporeal membrane oxygenation (ECMO) and high frequency oscillatory ventilation (HFOV) were used because of acute respiratory distress syndrome (ARDS) and complicated bilateral pneumothorax during hospitalization. ECMO and HFOV were instituted for 30 days and 10 days, respectively. Full recovery of consciousness and cognition were observed, and her activities were not limited in the 6-month follow-up. ***(Thorac Med 2011; 26: 325-331)***

Key words: extracorporeal membrane oxygenation, high frequency oscillatory ventilation, acute respiratory distress syndrome

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使用體外循環維生系統及高頻震盪呼吸器治療一氧化碳中毒重症合併急性呼吸窘迫症候群病患—病例報告及文獻回顧

黃朝新*,**　彭萬誠**　簡志峯**　蔡鎮良**　黃坤崙**

一氧化碳中毒是極為常見的病症，常見的症狀可從無症狀，輕微頭痛、胸悶、意識昏迷合急性呼吸衰竭。一氧化碳中毒的主要治療方式是以高濃度氧氣或高壓氧治療。於最近的病例報告刊載，極少病例以使用體外循環維生系統及高頻震盪呼吸器治療一氧化碳中毒合併急性呼吸窘迫症候群及氣胸之重症病患。我們報告一例三十九歲女性，因意外暴露於一氧化碳長達十二小時以上。病患呈現嗜睡、呼吸衰竭、肺水腫。於接受加護照護時，發生急性呼吸窘迫症候群及自發性氣胸，遂使用外循環維生系統及高頻震盪呼吸器治療。於使用高頻震盪呼吸器十天及體外循環維生系統三十天後血氧逐漸穩定下，轉至普通病房規則接受高壓氧治療。病患出院前意識及神智已完全恢復，並能勝任一般日常生活功能。*(胸腔醫學 **2011; 26: 325-331**)*

關鍵詞：體外循環維生系統，高頻震盪呼吸器，急性呼吸窘迫症候群

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Tracheobronchomegaly Presenting as Tracheomalacia: A Case Report

Ching-Chi Hsieh*, Kuo-Hsuan Hsu**, Ming-Chen Chan*, Sen-Ei Shai***, Jeng-Yuan Hsu*, Chieh-Liang Wu**,****

Tracheobronchomegaly, also called Mounier-Kuhn syndrome, is a rare congenital condition characterized by a dilated trachea and main bronchi. It often presents recurrent pulmonary infections, tracheal diverticulosis, or bronchiectasis in the 3rd or 4th decade of life. Diagnosis is made by chest X-ray, bronchoscopy or chest computed tomography scan. Although approximately 100 cases have been reported, the true incidence remains unknown. Treatment includes airway hygiene, antibiotics, stent placement, and rarely, lung transplantation. Herein, we report the case of a patient with an early onset of air leakage through the peri-cuff space after intubation for head injury. He was treated as having tracheomalacia at first. Finally, tracheobronchomegaly, a rare cause of endotracheal tube air leakage, was confirmed after comprehensive study. ***(Thorac Med 2011; 26: 332-337)***

Key words: tracheobronchomegaly, Mounier-Kuhn syndrome, tracheomalacia, air leakage

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氣管支氣管巨大症表現爲氣管軟骨軟化：病例報告

謝景吉* 徐國軒** 詹明澄* 謝聖怡*** 許正園* 吳杰亮**,****

氣管支氣管巨大症（tracheobronchomegaly，又稱Mounier-Kuhn syndrome）是一個以氣管及支氣管擴大為特徵的罕見先天性疾病。臨床表現通常於30至50歲左右以反覆肺部感染、氣管憩室或支氣管擴張症來表現。診斷主要是靠影像學，包括胸部X光、支氣管鏡或胸部電腦斷層。儘管全世界至今只有大約100個病例被呈現，但實際的發生率仍然不知道。治療上主要包含呼吸道清潔、抗生素、支架置放術，甚至極少數接受肺臟移植。此文中我們呈現一個腦傷後接受氣管內插管的病人出現早發性氣囊漏氣之現象；首先懷疑氣管軟骨軟化（tracheomalacia），但經過進一步檢查我們確認一個氣管內管氣囊漏氣的罕見原因為氣管支氣管巨大症。*(胸腔醫學 **2011; 26: 332-337**)*

關鍵詞：氣管支氣管巨大症，氣管軟骨軟化，氣囊漏氣

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Rare Manifestation of Primary Pulmonary Carcinoid Tumor as Non-Obstructive Consolidation with Angiogram Sign

Yen-Fu Chen, Chin-Chung Shu*, Long-Wei Lin***, Chung-Yu Chen**, Chong-Jen Yu

Pulmonary carcinoid tumors are considered to be a low grade malignancy, and comprise 1-2% of pulmonary malignancies. Pulmonary carcinoid tumors are usually distributed centrally, resulting in atelectasis or consolidation secondary to bronchial obstruction. With regard to peripheral pulmonary lesions, the tumors are ovoid or lobulated. However, in our patient with pulmonary typical carcinoid tumor, the main pulmonary lesion was a non-obstructive consolidation, which has never been reported in the literature. In addition, the computed tomography (CT) angiogram sign seen in our case is a rare finding in pulmonary carcinoids. Chemotherapy-related deep vein thrombosis and pulmonary embolism occurred 2 weeks after the initiation of cisplatin and etoposide therapy, leading to a poor prognosis. ***(Thorac Med 2011; 26: 338-345)***

Key words: consolidation, pulmonary carcinoids, typical carcinoid tumor

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以罕見的非阻塞性實質化合併血管造影表徵的原發性肺類癌

陳彥甫　樹金忠*　林隆偉***　陳崇裕**　余忠仁

肺類癌被認為是低度惡性腫瘤且大概佔肺惡性腫瘤的1~2%左右。通常肺類癌都分布在靠近肺中心處並因為腫瘤造成支氣管阻塞常伴隨著肺擴張不全和實質化的併發症。關於周圍型的肺類癌病變，腫瘤通常呈現卵圓狀或分葉狀腫瘤病灶。然而，我們的病人是典型肺類癌腫瘤，其主要的肺部病變是以非阻塞性的實質化來表現,這從未有文獻報導過。此外，我們病人電腦斷層出現“血管造影表徵”這在肺類癌是罕見的。然而，在使用cisplatin合併etoposide治療這病人2個星期後，卻發生了化學治療引起的深層靜脈栓塞及肺栓塞，而導致病人有較差的預後。*(胸腔醫學* ***2011; 26: 338-345****)*

關鍵詞：肺實質化，肺類癌，典型類癌

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Pulmonary Actinomycosis Mimicking Cancer: A Case Report

Wei-Sha Lin, Ching-Chi Lin, Ming-Jen Peng

Pulmonary actinomycosis is a rare disease and is difficult to diagnose. Because of the improvements in oral hygiene in modern society and the greater availability of antibiotics to treat pulmonary infections, the incidence and severity of pulmonary actinomycosis has declined markedly. Delayed diagnosis or misdiagnosis as other chronic suppurative lung diseases or malignancy is common. We report a case of pulmonary actinomycosis in a 50-year-old woman who presented with chronic cough with bloody sputum. We performed bronchoscopy with biopsy to confirm the diagnosis. She had a good response to 6-month penicillin G therapy. ***(Thorac Med 2011; 26: 346-351)***

Key words: penicillin, pneumonia, pulmonary actinomycosis

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肺放線菌病：一病例報告

林煒莎　林清基　彭明仁

肺放線菌病（Pulmonary actinomycosis）是一種稀少且困難診斷的疾病，由於口腔衛生的進步和早期使用抗生素治療肺炎，這種疾病的發生率和嚴重度已顯著減少。延遲診斷或誤診成其它慢性化膿性疾病或是腫瘤是很常見的，肺放線菌是厭氧菌，很難經由痰液培養或支氣管和肺泡灌洗檢體培養來確定診斷，大部份需經由組織檢體的獲得才能確定診斷。在治療上，若有出現併發症例如胸壁廔管，則需要開刀。若使用抗生素，則需要使用六個月的時間。早期適當的治療，病人都有不錯的癒後。

我們在此報告一位50歲的女性病人，有慢性咳嗽和咳血痰等症狀，影像學上，一開始懷疑腫瘤，後來經由於支氣管鏡所獲得的肺組織檢體確診，病人接受六個月的盤尼西林治療後痊癒。*(胸腔醫學* ***2011; 26: 346-351)***

關鍵詞：盤尼西林，肺炎，肺放線菌病

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Interferon-alpha Therapy plus Ribavirin Successfully Treat Acute Flare-up of Hepatitis C during Anti-Tuberculous Treatment

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Hepatitis during anti-tuberculous treatment (HATT) is a complex issue for patients with chronic viral hepatitis C, especially when it recurs after re-challenging the anti-tuberculous drugs. Concerns exist about the safety profile and efficacy of interferon-alpha therapy for active hepatitis C in patients with pulmonary tuberculosis. Herein, we report a 43-year-old man who developed an acute flare-up of hepatitis C during anti-tuberculous treatment and was successfully treated with interferon-alpha and ribavirin. The reduction of liver enzymes correlated well with the hepatitis C viral load, thus enabling the re-challenge with isoniazid and rifampin. This case demonstrates the benefit of interferon-alpha therapy in managing an acute flare-up of hepatitis C during anti-tuberculous treatment. ***(Thorac Med 2011; 26: 352-356)***

Key words: hepatitis C, tuberculosis, interferon

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成功以干擾素合併Ribavirin治療在一合併肺結核及C型肝炎患者接受抗結核藥物過程中產生之急性肝炎—一病例報告及文獻回顧

李孟叡　王振源　李麗娜

對合併有慢性C型肝炎的肺結核病人，處理抗結核藥物治療過程中產生的急性肝炎是個複雜的議題。我們報告一位合併慢性C型肝炎和肺結核的病人在使用抗結核藥物後產生急性肝炎，我們在嘗試逐一重新加入抗結核藥物卻失敗之後，成功地以干擾素合併ribavirin治療C型肝炎，使肝指數降低，進而完成整個抗結核藥物治療過程。*(胸腔醫學* ***2011; 26: 352-356)***

關鍵詞：C型肝炎，肺結核，干擾素

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Mediastinal Tuberculous Lymphadenopathy Diagnosed by Endobronchial Ultrasound-Guided Trans-Bronchial Needle Aspiration: A Case Report

Li-Ta Keng, Chao-Chi Ho, Chong-Jen Yu

Mediastinal tuberculous lymphadenopathy without lung parenchymal change is much more common in children and in adults with human immuno-deficiency virus (HIV) infection. In endemic areas like Taiwan, it should be a differential diagnosis of mediastinal lymphadenopathy. Although imaging patterns on chest computed tomography (CT) such as central low attenuation with peripheral rim enhancement are suggestive, the definitive diagnosis depends on microbiology and pathology studies. Endobronchial ultrasound-guided trans-bronchial needle aspiration (EBUS-TBNA) is a diagnostic tool for evaluating the etiology of mediastinal lymphadenopathy that is less invasive and has a better safety profile than mediastinoscopy. Herein, we report a 36-year-old female with fever and mediastinal lymphadenopathies, who was diagnosed with mediastinal tuberculous lymphadenopathy by EBUS-TBNA. Mediastinal tuberculous lymphadenopathy can be diagnosed using EBUS-TBNA instead of the more invasive diagnostic procedures. ***(Thorac Med 2011; 26: 357-362)***

Key words: mediastinal tuberculous lymphadenopathy, endobronchial ultrasonography, trans-bronchial needle aspiration

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支氣管內超音波導引經支氣管細針抽吸診斷結核性縱膈腔淋巴腺腫大：病例報告

耿立達　何肇基　余忠仁

無合併肺實質病變的結核性縱膈腔淋巴腺腫大常發生於小孩或感染後天免疫缺乏病毒的成人。然而在如台灣一樣的結核病流行地區，它仍是縱膈腔淋巴腺腫大的鑑別診斷之一。雖然典型的胸部電腦斷層變化如中央低密度與邊緣性顯影為結核性縱膈腔淋巴腺腫大之特徵，確切診斷仍需仰賴微生物學與病理學檢查。支氣管內超音波導引經支氣管細針抽吸為評估縱膈腔淋巴腺腫大原因的診斷工具；與縱膈腔鏡相比具有較低的侵襲性與較高的安全性。我們在此報告一位臨床表現為發燒與縱膈腔淋巴腺腫大的36歲女性病患；經支氣管內超音波導引經支氣管細針抽吸診斷為結核性縱膈腔淋巴腺腫大。支氣管內超音波導引經支氣管細針抽吸可用來診斷結核性縱膈腔淋巴腺腫大，因而避免其他較具侵襲性的診斷方式。*(胸腔醫學* ***2011; 26: 357-362)***

關鍵詞：結核性縱膈腔淋巴腺腫大，支氣管內超音波，經支氣管細針抽吸

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Newly Developing Osteoblastic Lesions during Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor Treatment Do Not Necessarily Indicate Disease Progression

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Bone metastases commonly occur in patients with non-small cell lung cancer (NSCLC) at the time of diagnosis or during the disease course. Metastatic bone lesions can present radiographically as an osteolytic, osteoblastic, or mixed pattern. Osteoblastic bone lesions that present in patients during treatment with epidermal growth factor receptor tyrosine kinase inhibitors (EGFR-TKI) must be interpreted with caution, and be differentiated as either the sign of a truly progressive disease or a repairing reaction caused by a good therapeutic response. Misinterpretation may lead to a contrary prognosis. Herein, we present 3 NSCLC patients who had increased or newly developing osteoblastic bone lesions after 3 months of EGFR-TKI treatment, but the primary tumors were otherwise responding or stable. All chest CT scans were interpreted as progressive disease by the radiologists, but the patients were kept on the same treatment based on clinical judgment. All 3 patients had disease control for at least 4 months afterward. Therefore, increased or newly developing osteoblastic bone lesions that appear during treatment with EGFR-TKI should be interpreted with caution, because they do not always indicate progressive disease. ***(Thorac Med 2011; 26: 363-368)***

Key words: osteoblastic reaction, epidermal growth factor receptor tyrosine kinase inhibitor, non-small cell lung cancer

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成骨病兆出現在接受表皮生長因子接受體酪胺酸激酶抑制劑治療的非小細胞肺癌病患並非一定意謂疾病惡化

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非小細胞肺癌病患在診斷當初甚至在疾病進展的過程常伴隨有骨骼轉移。影像學上骨骼轉移可以是蝕骨病兆，成骨病兆或兩者同時表現。當我們在判讀接受表皮生長因子接受體酪胺酸激酶抑制劑（EGFR-TKI）治療的病患的治療反應時，在影像學上若出現成骨現象的反應時必須非常謹慎。因為對治療有反應的病人在影像學上亦可表現成骨病兆。我們報告三位接受EGFR-TKI的非小細胞肺癌病患，在追蹤的過程當中，除了骨頭出現成骨反應外，其疾病是處於有反應或穩定狀態。但放射學專家一開始都認為此成骨反應表現代表疾病惡化。當我們持續追蹤至少四個月後發現，這些疾病仍是處於穩定階段，甚至原發病兆有縮小。因此，當臨床醫師在判讀成骨反應的影像學之表現時，除了疾病惡化以外，鑑別診斷還必須包含這是有效的治療。*(胸腔醫學* ***2011; 26: 363-368)***

關鍵詞：成骨病兆，表皮生長因子接受體酪胺酸激酶抑制劑，非小細胞肺癌

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