

The Clinical Uses of Video-assisted Mediastinoscopy – A Preliminary Report

Chih-Shiun Shih, Der-Chuen Shiah*, Chih-Ching Yen*

Liang-Wen Hang*, Der-Yuan Wang*, Nan-Yung Hsu

Our experience with cervical video-assisted mediastinoscopy in 22 cases during the past 2 years is reported. Clinically, all 22 patients had the findings of paratracheal lymphadenopathy on roentgenography and computerized tomography scanning of the chest. The equipment included a videocamera that was connected to a 160 mm mediastinoscope and a TV monitor, a suction-coagulation dissector, a puncture needle connected to suction, and a biopsy forceps. Biopsy was adequately performed piece-by-piece on the tissue (tumor or lymph node) found by mediastinoscopy. Postoperative pathologic studies showed the existence of a hyperplastic change of the lymph nodes in 10 patients, metastatic carcinoma in 4, tuberculosis lymphadenitis in 2, and sarcoidosis in 6. None of the patients had any surgical complications except for one patient with a controllable bleeder. In summary, video technologies can be very helpful when performing mediastinoscopy, leading to an enlarged surgical field, improved operative performance, and an ergonomic position for the surgeon, in addition to providing a good aid for multiple teaching. (*Thorac Med 2000; 15: 110-114*)

Key words: video-assisted mediastinoscopy

Division of Chest Surgery, Department of Surgery; *Division of Chest Medicine, Department of Internal Medicine
China Medical College Hospital, Taichung, Taiwan, R.O.C.

Address reprint requests to: Dr. Nan-Yung Hsu, No 2, Yuh-Der Road, Taichung, Taiwan, R.O.C.

視訊輔助縱膈腔鏡的臨床運用-初步報告

施志勳 夏德椿* 顏至慶* 杭良文* 王德源* 許南榮

報告最近二年來 22 例經由頸部視訊輔助縱膈腔鏡的經驗。臨床上，所有 22 例在胸部 X 光和胸部電腦斷層檢查都發現有氣管旁淋巴腺病變。使用的設備包括以視訊攝影機連接 160 毫米長的縱膈腔鏡和電視機，抽吸器和電燒剝離器，可連接吸取的探針，以及切片攝子。經由縱膈腔鏡可將組織(包括腫瘤、淋巴腺)以小塊切片摘取。手術後病理報告，包括 10 例為淋巴腺增生反應，4 例為轉移性癌症，2 例為結核性淋巴炎和 6 例類肉瘤。除了 1 例手術當中出血，並順利地加以止血後，其他病例並無併發症發生。總之，我們建議以視訊技術輔助實施縱膈腔鏡檢查手術，此乃有助於擴大手術視野，增進手術者的手術操作舒適性，也可做為手術當中的教學工具。(*胸腔醫學* 2000; 15: 110-114)

關鍵詞：視訊輔助縱膈腔鏡

煤礦工人的通氣功能研究

楊錫欽 林凌芝* 盧國輝*

煤礦工塵肺症(coal workers' pneumoconiosis, CWP)在臨床上會引發多種肺功能異常。為探討台灣礦工 CWP 患者之通氣障礙型態,本文針對 98 位煤礦工,依其 X 光表現並按照國際勞工組織所訂定的標準予以分類,計得無塵肺陰影者(category 0)25 位,單純塵肺症(simple pneumoconiosis)者 49 位,進行性重度肺纖維化(progressive massive fibrosis, PMF)者 24 位。所有礦工均接受通氣功能、肺容積及氣道阻力測定。觀察的結果顯示 CWP 患者整體的用力肺活量(forced vital capacity, FVC)及全肺量(total lung capacity, TLC)並無異常;但一秒量(forced expiratory volume in one second, FEV₁),一秒率(FEV₁/FVC),及呼氣速率參數(maximal expiratory flow rate at 75% and 50% FVC, Vmax 75 與 Vmax 50)均有低下的現象。單純塵肺症患者約有一半(49%)其最大呼氣流速容積曲線為正常,43%顯現阻塞型通氣障礙,而且此一分佈狀況與 X 光小陰影形狀(線狀與粒狀)分類無關。用力肺活量在 PMF 患者才有明顯的下降(至預測值的 58.1±17.3%)。氣道阻力在所有的煤礦工,包括 X 光無塵肺陰影者,均有上升,且其幅度隨著 X 光等級而加大。本文的結論是台灣 CWP 在肺功能上是以阻塞型通氣障礙為主要表徵,但不能排除抽煙之因素。

(*胸腔醫學* 2000; 15: 115-119)

關鍵詞：煤礦工塵肺症，通氣障礙，肺功能

A Study on the Ventilatory Function of Coal Miners

Shieh-Ching Yang, Lin-Chih Lin*, Kok-Wee Low*

Clinically, coal workers' pneumoconiosis (CWP) may result in several pulmonary functional abnormalities. In order to further understand the patterns of ventilatory defect of patients with CWP in Taiwan, this study collected 98 coal miners including 25 with X-ray category 0, 49 with simple pneumoconiosis and 24 with progressive massive fibrosis (PMF). Tests were conducted to determine their ventilatory function, lung volumes and airway resistance (Raw). Our data revealed that patients with CWP demonstrated a normal FVC (forced vital capacity) and a normal TLC (total lung capacity). However, expiratory flow parameters such as FEV1 (forced expiratory volume in 1s) and FEV1/FVC were decreased. The maximal expiratory flow-volume curves in approximately half (49%) of the patients with simple pneumoconiosis were normal, and were of an obstructive pattern in additional 43% of them. The types of ventilatory defect did not vary with shapes of small opacities in simple pneumoconiosis. Remarkable reduction in FVC and TLC were observed mainly in patients with PMF. However, Raw was consistently elevated in all groups, even in patients with category 0 of CWP. We conclude that CWP in Taiwan, from functional point of view, is primarily manifested with an obstructive ventilatory defect.

(Thorac Med 2000; 15: 115-119)

Key words: coal workers' pneumoconiosis, ventilatory defect, pulmonary function.

Comparison of Orlowski and APACHE II Scores as Predictors of Outcome in Near-drowning Patients

Jiann-Der Lee, Gwan-Han Shen, Chun-Ming Shih, Chi-Der Chiang

Background

The Orlowski and APACHE II scores have been used to quantify the severity of illness in various groups of patients. The purpose of this study was to compare the clinical usefulness of the two scores in predicting outcome in near-drowning patients.

Methods

Forty-five patients (male: 28; female: 17) with the diagnosis of near drowning were retrospectively enrolled in this study. Patient outcomes were categorized into two groups based on the status at discharge: the intact survival group and the vegetative/non-survival group. The two groups were analyzed and compared using the Orlowski and APACHE II scores. Statistical analysis was carried out using the Student's test and the X^2 test; multiple logistic regressions and Youden's index were used to compare the relative predictive power of the tested Orlowski and APACHE II scores.

Results

Twenty-seven patients emerged with intact survival, five patients with persistent neurological deficit, and 13 patients expired. In comparing the intact survival group (n=27, good outcome) and the vegetative/non-survival group (n=18, poor outcome), we found that an Orlowski score ≥ 3 , and an APACHE II score ≥ 15 , could predict a poor outcome in near-drowning patients, by 87% and 89% respectively. However, no significant differences were revealed when using both methods to predict outcomes in near-drowning patients.

Conclusion

Our results showed that both the Orlowski score and the APACHE II score were valuable in predicting the outcome of near-drowning patients. (*Thorac Med* 2000; 15:120-125)

Keywords : Near drowning, Orlowski score, APACHE II score

Division of Chest Medicine, Department of Internal Medicine Taichung Veterans General Hospital, Taichung, Taiwan, ROC.

Address reprint requests to: Gwan-Han Shen, Division of Chest Medicine, Department of Internal Medicine, Taichung Veterans General Hospital, No.160, Sec.3, Taichung Chung-Kang Road. Taichung, Taiwan, ROC.

比較使用 Orlowski 與 APACHE II 計分預測溺水病人的預後

李建德 沈光漢 施純明 江自得

背景 Orlowski計分與APACHE II計分常被用來評估不同患者疾病的嚴重程度。本研究的目的乃在觀察這兩種分數表與溺水病患預後的相關性，同時也比較兩者預測病人預後能力的優劣性。

方法 我們一共搜集了45位溺水病患，其中28位是男性，17位是女性。病人的預後，根據他們出院時的狀況，分成兩組：一組是預後良好的存活者，另外一組則是預後不良的患者，包括有永久性神經障礙者及死亡者。首先比較兩組病患的Orlowski計分與APACHE II計分的差異性；其次評估兩種計分法預測病人預後的能力。

結果 45位病人中，有27位是預後良好的存活者，有18位患者屬預後不良者(其中有5位具永久性神經障礙，有13位是死亡)。兩組病患的Orlowski計分與APACHE II計分都有顯著的差異($P < 0.00001$ vs. $P < 0.00001$)。Orlowski計分 ≥ 3 與APACHE II計分 ≥ 15 可以分別正確地預測86.7%與88.9%預後不良者。進一步比較兩種分數表預測病人預後的能力，則無明顯優劣差異。

結論 Orlowski計分與APACHE II計分都是預測溺水病患預後的良好指標，同時兩者的預測的能力不分軒輊。(《胸腔醫學》2000; 15: 120-125)

關鍵詞：溺水，Orlowski計分，APACHE II計分

Immunohistochemical Study of Hepatocyte Growth Factor in Non-Small-Cell Lung Cancers

Jen-Yu Hung, Jiunn-Jiun Hou, Te-Hung Hsu, Jiuan-Nan Chen *, Tung-Heng Wang, Inn-Wen Chong, Jhi-Jhu Hwang, Eing-Long Kao **, Ming-Shyan Huang

Hepatocyte growth factor (HGF) is a multifunctional growth factor with a broad spectrum of biological effects. However, the physiological role of HGF *in vivo* remains largely unknown. We studied HGF in patients to investigate its clinical significance in non-small-cell lung cancers (NSCLC). Twenty patients with NSCLC were studied. HGF immunohistochemical staining was used to study twenty NSCLC tumor tissue specimens. Sixteen of 20 NSCLC tumors were positive for the anti-HGF immunohistochemical stain, and NSCLC cells showed a diffused cytoplasm immunoreactivity for HGF. The stroma of all specimens showed variable and weak fibroblastic immunoactivity for HGF, but there was strong immunoactivity over the small vascular walls. In conclusion, our results suggest that HGF may play an important role in the growth and behavior of NSCLC. Further investigation may be required. (*Thorac Med* 2000; 15: 126-133)

Key words: hepatocyte growth factor (HGF), immunohistochemistry, non-small-cell lung cancer

Division of Chest Medicine, Department of Internal Medicine, Department of Surgery**, Kaohsiung Medical University, *Kaohsiung Municipal Ta-Tung Hospital, Kaohsiung, TAIWAN.

Address reprint requests to: Ming-Shyan Huang, M.D., Department of Internal Medicine, Kaohsiung Medical University, 100, Shih-Chuan 1st Road, Kaohsiung, 80708, TAIWAN.

非小細胞肺癌之肝細胞生長因子免疫組織化學研究

洪仁宇 侯俊君 許德宏 陳俊男* 王東衡 鍾飲文 黃吉志 高英隆** 黃明賢

肝細胞生長因子被認為是一種多功能性之生長因子具有多種生物學功能作用。但是至今肝細胞生長因子在人體內的生理功能機轉及所具有的角色尚未十分明白。我們用免疫組織化學方法研究肝細胞生長因子在非小細胞肺癌之表現。二十位非小細胞肺癌病例進入比研究，針對這二十個肺癌腫瘤標本，進行肝細胞生長因子之免疫組織化學染色。結果有十六位病例免疫組織化學染色呈現陽性反應，非小細胞肺癌細胞的細胞質呈現肝細胞生長因子之免疫組織化學陽性反應，肺癌組織間質及纖維細胞亦有弱的肝細胞生長因子之免疫組織化學陽性反應，組織的小血管壁呈現強度的肝細胞生長因子之免疫組織化學陽性反應。由我們的研究結果，顯示肝細胞生長因子可能在非小細胞肺癌細胞的繁殖生長上具有重要的角色，可能在非小細胞肺癌的腫瘤血管增生上亦具有其作用功能。今後需要作更進一步深入研究。(*胸腔醫學* 2000; 15: 126-133)

關鍵詞：肝細胞生長因子，免疫組織化學，非小細胞肺癌

Disseminated *Strongyloides stercoralis* Infection in a Patient with Chronic Obstructive Pulmonary Disease – A Case Report

Shen-Chun Chen, Hung-Yang Tao, Jiunn-Der Lee, Lin Lee, Kam-Chung Lee,
Chia-Jung Chen*

Disseminated *Strongyloides stercoralis* infection occurs in the immunocompromised host. This infection can repeat its particular life cycle indefinitely and result in chronic infection in the patient. The filariform larvae can carry enteric bacteria and fungi on their outer surface and induce severe infection with sepsis when the larvae migrate through the whole body. We herein present a case of chronic obstructive pulmonary disease (COPD) with disseminated *S. stercoralis* infection involving the lungs, small intestine, colon, kidneys, thyroid gland, lymph nodes, and heart, which was proved by autopsy. The patient was admitted because of COPD with acute respiratory failure. Severe *Strongyloides* infection with gastrointestinal and pulmonary involvement was diagnosed by observing the living larvae in the sputum and stool during the premortum period. The patient was treated with mebendazole 200 mg twice per day. He subsequently expired due to disseminated *S. stercoralis* infection and sepsis with acute respiratory distress syndrome. To the best of our knowledge, this is the first case report of COPD complicated with disseminated strongyloidiasis receiving postmortum examination in Taiwan. (*Thorac Med* 2000; 15: 134-140)

Key words: *Strongyloides stercoralis*, chronic obstructive pulmonary disease

Division of Respiratory Therapy, Department of Medicine, *Department of Pathology and Laboratory Medicine, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan

Address reprint requests to: Dr. Hung-Yang Tao, Division of Respiratory Therapy, Department of Medicine, Kaohsiung Veterans General Hospital 386 Ta-Chung 1st Road, Kaohsiung, Taiwan

慢性阻塞性肺病合併播散性糞小桿線蟲感染－病例報告

陳勝群 陶宏洋 李俊德 李琳 李錦中 陳家榮*

播散性糞小桿線蟲感染常發生於免疫力低下的病人。幼虫於全身游走時，會合併有嚴重的細菌感染，死亡率高達百分之八十。在這裏，我們報告一位慢性阻塞性肺病的病人，曾經使用過類固醇。由於散播性糞小桿線蟲感染，併發肺炎、敗血症及急性呼吸窘迫症候群致死的病例。死後的病理解剖顯示蟲體於肺、小腸、大腸、腎、甲狀腺、淋巴結和心臟，合併有嗜伊紅性血等白血球的浸潤。據我們所知，這是台灣第一個死後接受病理解剖的播散性糞小桿線蟲病例。(胸腔醫學 2000; 15: 134-140)

關鍵詞：糞小桿線蟲，慢性阻塞性肺病。

Aspiration of A Broken Metallic Tracheostomy Tube— An Unusual Cause of Tracheobronchial Foreign Body

Puh-Shen Yeh, Yeong-Long Hsu , Ping-Hung Kuo

We here report a rare case of a tracheobronchial foreign body due to metallic tracheostomy tube breakage. A 77-year-old male patient was presented to the emergency room because of a sudden onset of dyspnea. The patient had been a chronic user of a metallic tracheostomy tube. Degradation of the braced joint apparently resulted in an external tube component detaching from the tracheostomy plate. This external tube component was aspirated and became lodged in the left main bronchus. We removed the foreign object without complication using biopsy forceps through a flexible bronchoscope under topical anesthesia. In this report, we also review related literature to identify the mechanism and management of this rare complication. (*Thorac Med* 2000; 15: 141-145)

Key words: metallic tracheostomy tube, biopsy forcep, tracheobronchial foreign body, flexible bronchoscope.

吸入斷裂之金屬氣切套管－氣管及支氣管異物罕見之原因

葉步盛 許永隆 郭炳宏

我們描述一位 76 歲男性，因為陳舊性中風及反覆吸入性肺炎而接受氣管切開術，並長期使用金屬氣切套管。因氣切套管斷裂而導致危及生命的呼吸道阻塞。臨床上病人有突發性呼吸困難的現象。胸部 X 光顯示斷裂之金屬氣切套管正好卡在左主支氣管。我們嘗試局部麻醉並使用軟式支氣管內視鏡配合有齒之切片鉗成功的取出此異物，病人免除了全身麻醉並於隔天順利出院。金屬氣切套管斷裂後造成呼吸道阻塞之病案報告並不多見。我們回顧過去的文獻報告並探討其原因及處理方式。*(胸腔醫學 2000; 15: 141-145)*

關鍵詞：金屬氣切套管，切片鉗，氣管及支氣管異物，支氣管內視鏡

Papillary Thyroid Carcinoma with Pleural Metastasis – A Case Report

Chen-Hsing Chou, Kuo-An Chu, Jau-Yeong Lu, Hong-Chung Wang

Papillary carcinoma of the thyroid generally follows an indolent course, with slow growth and a low metastatic rate. The most common sites of metastases are the cervical lymph nodes, the lungs' and bone. Pleural metastasis is a rare condition, but a poor prognostic sign when it appears. We present a female who had a history of papillary thyroid carcinoma, and who developed massive right side pleural effusion one year after total thyroidectomy. Papillary thyroid carcinoma with pleural metastasis was considered due to elevated thyroglobulin (Tgb) in the pleural effusion and a positive pleural uptake in the iodine I-131 whole-body scan. The diagnosis was proved by thoracoscopic biopsy. Systemic I-131 therapy was given, but no significant improvement was noted. She died 8 months after the pleural metastasis had presented. (*Thorac Med* 2000; 15: 146-151)

Key words: Papillary thyroid carcinoma, pleural metastasis, thyroglobulin.

Division of Chest Medicine, Department of Medicine, Veterans General Hospital -Kaohsiung, Taiwan, ROC
Address reprint requests to: Kuo-An Chu, MD, Division of Chest Medicine, Department of Medicine, Veterans
General Hospital Kaohsiung, 386, Ta-Chiung 1st Road, Kaohsiung, Taiwan, ROC.

乳凸狀甲狀腺細胞癌併肋膜轉移及肋膜積液－病例報告

周振興 朱國安 盧朝勇 王鴻昌

乳凸狀甲狀腺細胞癌是一種進展緩慢的腫瘤，有較低的轉移比例。最常見的轉移部位為頸部淋巴腺，肺部及骨頭。併發肋膜轉移是一種很少見的情況，且常是病患預後不好的指標。我們報導一個女性病患，先前有乳凸狀甲狀腺細胞癌接受甲狀腺全切除手術。手術一年後發生大量右側肋膜積液。積液檢查顯示甲狀腺球蛋白(Thyroglobulin)升高，且碘-131 全身掃描亦顯示肋膜有攝取。吾人懷疑此為甲狀腺癌併肋膜轉移，後經胸腔鏡切片檢查證實。雖然給予碘-131 治療，病情仍無改善。病患於八個月後死亡。(胸腔醫學 2000; 15: 146-151)

關鍵詞：乳凸狀甲狀腺細胞癌，肋膜轉移，甲狀腺球蛋白

Recurrent Juvenile-Onset Laryngotracheal Papillomatosis With Pulmonary Parenchymal Spread – A Case Report

Jiann-Der Lee, Gee-Chen Chang, Chih-Mei Huang, Gwan-Han Shen, Chi-Der Chiang

A 33-year-old female patient with juvenile-onset laryngotracheal papillomatosis had presented with hoarseness and upper airway obstruction at 7 years old, and received a CO₂ laser papillectomy and tracheostomy. Papillomatosis recurred and underwent repeated CO₂ laser and local acyclovir cream treatments, but with no appreciable improvement. During the last month, progressive shortness of breath, dyspnea on exertion, and fever had developed. Multiple cavitory lesions were found incidentally on chest radiography. A bronchoscopy was performed and papillomatosis was confirmed, with bronchial and lung spread. A review of the literature has shown that respiratory tract papillomas distally extending into the trachea, bronchi, and lung parenchymal are rarely seen. (*Thorac Med* 2000; 15: 152-156)

Key words: laryngotracheal papillomatosis

復發性幼年型喉與氣管的乳頭狀瘤病併肺擴散－病例報告

李建德 張基晟 黃枝梅 沈光漢 江自得

一位 30 歲女性病人於七歲時被診斷為幼年型喉與氣管的乳頭狀瘤病，初期症狀為聲音沙啞與上呼吸道阻塞，隨後接受二氧化碳雷射切除及氣切手術。復發後再多次接受二氧化碳雷射切除術及局部 acyclovir 藥膏塗抹，但效果並不令人滿意。最近因呼吸困難與發燒症狀求診，意外發現 X 光檢查肺部有多處空洞病灶，支氣管鏡檢證實有支氣管內乳頭狀瘤病擴散。回顧過去的文獻，呼吸道乳頭狀瘤病擴散至氣管，支氣管及肺部是相當罕見。(胸腔醫學 2000; 15: 152-156)

關鍵字：laryngotracheal papillomatosis