中文題目: 慢性咳血病患臨床處置與分析

英文題目: Diagnosis and Management of chronic hemoptysis after full treatment of pulmonary tuberculosis 13 years ago, a case analysis

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Case :

A hot potato about management about A 66 year old male came with complaints of persistent cough and recurrent bouts of hemoptysis for recent half year. He was treated symptomatically for another by so-called pulmonlogists but it recurred again at times. So he got admitted to our government medical department for work up and treatment. The past history of the patient revealed that he was treated case of TB 13 years ago. How could we do? Accoding to the patient statement, he had been suffered from intermittent blood tinged sputum for 6 months, and he had ever visited 2 pulmonologists and CXR showed Left moderate fibrosis .Though his hemoptysis gradually improved after medication. However ,due to increased yellowish sputum with cough, later he came to the other chest physician while breathing sound showed bilateral mild coarse bronchiectasis was impressed. During the whole course, there were no fever nor shortness of breath. This time, he had hemoptysis again since tonight and was sent to our ER for help where vital signs: BT:37.2, HR:95, RR:15, BP:119/88mmHg. PE showed bilateral rhonchi breath sound . Lab data showed WBC:6400 seg:79.4%, Hb:12.3, Cr:0.8, Na/K:131/4. CXR showed left lung collapse. Under impression of hemoptysis, cause to be determined, he was admitted for further evaluation and management .Past History : System ic disease : old TB ,Vital sign : BT:37.2C, HR:95, RR:15, BP: 119/88mmHg BAL:Aspergillu Positive(8.5) Serum: Aspergillus Negative(0.5)

Introduction：

Pulmonary aspergillosis is the definition given to a variety of lung diseases caused by the Aspergillus fungus. However, only a few were known to be pathogenic for

humans. The most frequent one was A.fumigatus. The Aspergillus was widely spread, mainly in rotting organic waste, dust, food and ventilation systems. Transmission was made by inhalation of airborne spores which then get deposition in the respiratory tract .Clinical manifestations depended on the virulence of the fungus,duration of exposure, especial on patient's immune state and co-existence of lung diseases .A 66 year-old male patient, retired official without significant drinking habits, was admitted with a 6-month history of cough, bloody sputum, sometime evening fever and extreme low body weight loss of about 40 kg with body legth 170 cm. Regarding past medical history, the following were relevant: pulmonary tuberculosis at 53 years of age, followed by upper left destroyed lung .Upon admission, the patient was emaciated, hemodynamically stable, with tympanic temperature of 37.7 °C, with SpO2 of 98 % (FiO2 28 %)and with rhoni breathing sound.Laboratory results showed: Hb, 11.8 g/dl ; leukocytes,6400 /dL (neutrophil 79.4 %; lymphocyte 10 %);CRP, 5.8 mg/dl; On admission, the following tentative diagnosis were considered: reactivation of TB, CAP and lung ca. The patient began treatment with moxifloxacin .Blood cultures and sputum cultures (bacterial and mycobacterial) were all negative. After during ward time, bronchoscope was performed, showing LUL bleeding. Bronchoalveolar lavage cultures (bacterial and mycobacterial) were also negative. The chest CT revealed a condensation region with cavitation on the left upper lobe . The mycological BAL galactomannan was positive .Serum Aspergillus galactomannan was negative (0.5 ng/mL).The final diagnosis was necrotizing pulmonary aspergillosis then treatment with Itaconazole was started. Clinical improvement was reached on the 14 th day

Discussion: The necrotizing pulmonary aspergillosis was recognized as form of aspergillosis, corresponded to an indolent process of lung destruction caused by the Aspergillus fumigatus. It was quite different from the invasive aspergillosis as no vascular invasion and dissemination to other systems. It mostly infected middle-aged and elder victims. The main risk factors are: COPD, sequel of old TB, post pulmonary resection. Other immunosuppressive state, such as DM, malnutrition,

alcoholism, collage vascular disease and prolonged steroid therapy all were increased risk hazard. In general, course was insidious and the main symptoms wee: cough, bloody sputum production, chest pain, low grade fever and weight loss. It can also be manifested through small volume or massive hemoptysis . The chest X-ray may reveal unilateral or bilateral infiltrates with or without cavitation and pleural thickness, especially in the upper lobes and or the upper segments of the lower lobes. Most of the cases, conglomeration of fungal hyphae mixed with mucus and cellular debris within pre-exist lung cavity, as to aspergiloma . Chest CT confirmed and characterizes the above described abnormality. Though definite diagnosis was made through the demonstration of histological invasion by the fungus and the growth of Aspergillus in culture. Pathologically, NPA is characterized by necrosis of lung tissue, inflammation of the cavity wall, and presence of hyphae consistent with Aspergillus species. Performance of transbronchial biopsy and percutaneous aspirates is quite risky, while biopsies by thoracoscope or thoracotomy were stifling difficult. Due to the burdensome in confirming the diagnosis, the following diagnosis criteria were recommended and together are highly indicative of NPA: characteristic clinical and radiological findings, elevation of serum markers (CRP, ESR) and either serological results positive for Aspergillus or the isolation of Aspergillus from respiratory samples. Active tuberculosis, non tuberculosis mycobacteria all should be excluded.Galactomannan in bronchoalveolar lavage was sensitive test for Aspergillus meaned proable diagnosis .Once diagnosis is established, the antifungal treatment should be started immediately. Itraconazole would be used in the cavitary forms. Hepatotoxicity is the major adverse concern. The ideal treatment duration has not yet been defined and depended on the extension of the disease, the patient's response to treatment, the underlying disease and the patient's immune condition. Surgical intervention is reserved for young patients with localized disease or intolerance to pharmacological therapy. Both patients had risk factors, namely sequel of tuberculosis and significant relative immune suppression state. They showed a clinical condition with relatively indolent progression. Generally an indolent disease

and that a significant percentage of patients had a prior pulmonary pathology, namely sequel of TB or cavitary lung disease , may contribute delayed diagnosis. Therefore, it is necessary to increase the level of suspicion for this pathology, especially in patients with important sequel alterations, and perform the recommended diagnostic tests in order to commence the correct treatment.