

115 年奇美醫學院胸腔內科臨床病例討論會

1 時間：115 年 09 月 15 日 PM: 4:00-5:00

2 課程活動題目：Bronchioloalveolar carcinoma in CXR

3 主講人：柯獻欽

4 地點：奇美醫學中心 10 樓空橋討論室

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6 摘要：

Primary lung carcinoma is divided histologically into four major types: **adenocarcinoma, accounting for roughly 30-35%**, squamous cell carcinoma (25-30%), small cell carcinoma (20-25%), and large cell carcinoma (10-15%). Small cell and squamous cell carcinoma are classically centrally located, while adeno- and large cell Ca are peripheral. **Bronchioloalveolar cell carcinoma (BAC) represents a sub-group of adenocarcinomas** of the lung, accounting for **2-9% of primary lung lesions**. The term bronchioloalveolar cell carcinoma was **coined by Liebow in 1960** and is used for lesions which meet the following criteria pathologically:

No other known primary adenocarcinoma

No lesion of central bronchogenic origin

Peripheral location

Intact interstitial framework

Histology demonstrating malignant cells which grow along existing alveolar walls

BAC is **usually a disease presenting in the 6th and 7th decades**, with a **3:2 male predominance**. **The link of smoking** as a predisposing factor is perhaps the **weakest** among primary lung neoplasms; however, an **increased incidence** of BAC is noted in patients with **chronic interstitial lung disease**.

The tumors arise from **type II pneumocytes within the walls of the alveoli**. The tumor cells usually form a single layer, although local proliferation may result in **crowding into the airspace's giving a papillary appearance**. A bronchioloalveolar cell growth pattern is characterized by the presence of tumor cells **spreading along the framework of normal lung parenchyma without its destruction**. Because the tumor does not involve the major bronchi, **atelectasis and emphysema are infrequent accompaniments**. Adenocarcinomas in general are less associated with smoking and are sometimes associated with scars

Diagnosis: Nearly half of patients with BAC are asymptomatic at presentation, with **cough, chest pain, and weight loss** most common among those with symptoms. If the tumor is **mucin secreting, a productive cough with abundant mucoid expectoration** can be seen. This classic finding of (marked) **bronchorrhea is an uncommon and late finding**.

Therapy: Therapy depends on the stage of the tumor. If the disease is localized surgery can be curative. The prognosis is poor for the diffuse type of the disease. Bronchioloalveolar carcinoma can metastasize to hilar and mediastinal nodes as well as outside the chest.

Radiology:

Bronchioloalveolar cell carcinoma typically has one of three radiologic patterns: a **solitary nodule** (43%); **consolidation** (30%), or **diffuse disease** (27%). Pleural effusions and mediastinal and hilar adenopathy can be present.

1. *Solitary Nodule:* Usually a well-circumscribed focal mass located in the periphery of the lung with **spiculated borders**. A **pleural tag or "tail sign"** is common and describes linear strands extending from nodule to pleura. A characteristic finding of bronchioloalveolar carcinoma is the presence of **bubble like lucencies or pseudocavitation**, which corresponds to patent small bronchi or air-containing cystic spaces in papillary tumors.

2. *Consolidated form:* May be **segmental or involve an entire lobe**. The combination of growth along the air spaces with the production of mucin may cause the features of **airspace consolidation with air-bronchograms**. If a large amount of mucin is present it may cause consolidation of low attenuation, and following the administration of intravenous contrast, the vessels will be seen within the consolidation. This is referred to as the CT angiogram sign and is suggestive of BAC.

3. *Diffuse or multicentric form:* Widespread disease in multiple lobes of both lungs.

Pearls:

Classic radiographic findings in bronchioloalveolar carcinoma include a solitary, spiculated mass with air bronchograms. Airspace consolidation and a diffuse, multicentric presentation are also common.

Bubble-like lucencies and "pseudocavitation" represent air within small bronchi. Differential diagnosis includes **lymphoma** and **infectious processes such as TB**.