
Lung Cancer Pathology, Part 2: The Spectrum of Neuroendocrine Lung Tumors and Bronchioloalveolar Carcinoma (BAC)



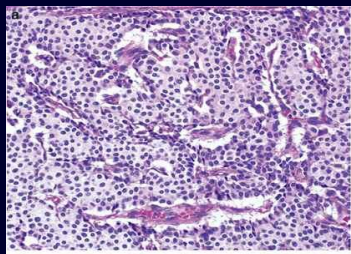
Interview with
Dr. Matthew Horton, Pathologist
CellNetix, Seattle, WA



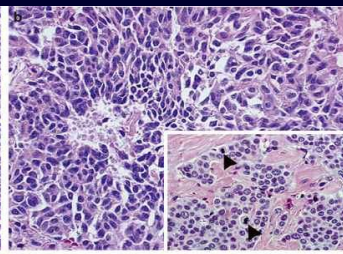
by Howard (Jack) West, MD
President & CEO
GRACE

The Spectrum of Neuroendocrine Lung Tumors

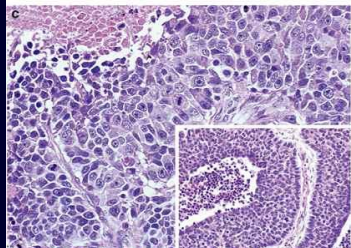
Typical
Carcinoid



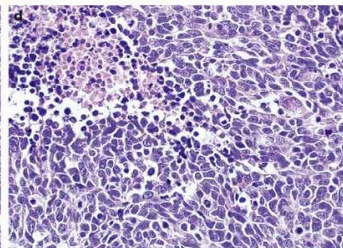
Atypical
Carcinoid



Large Cell
Neuro-
Endocrine
Carcinoma

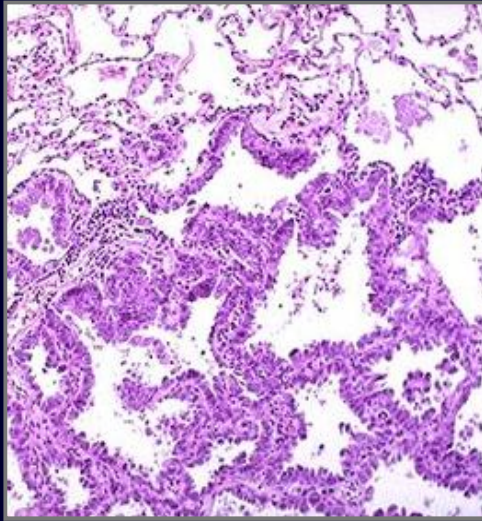


Small Cell
Lung
Cancer



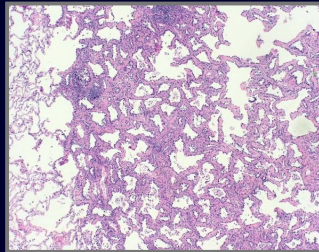
From D'Adda, Modern Path, 2005

BAC: Microscopic & Radiographic View

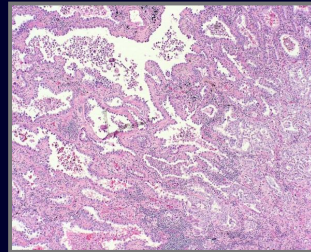


Pathologic Subtypes: A Continuum from Pure BAC to Invasive Adenocarcinoma

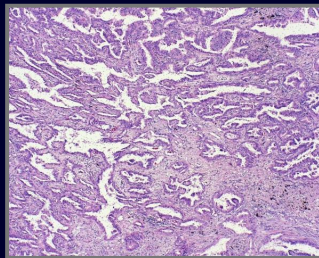
Pure
BAC



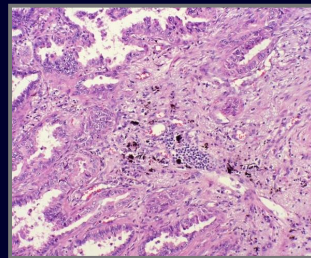
BAC with
Focal
Invasion



Adeno
with BAC
Features



Invasive
Adeno-
carcinoma

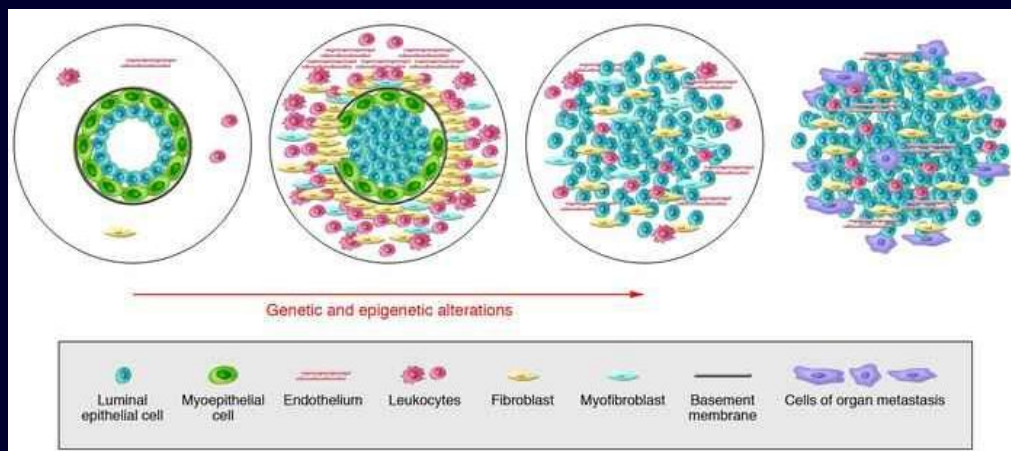


BAC No More?

- Leading adenocarcinoma pathologists have proposed a change in classification of adenocarcinomas:
 - Non-invasive, lesions formerly called BAC are now adenocarcinoma in situ (AIS), a preinvasive, precancerous disease (Tis)
 - no distortion of alveolar architecture
 - pure lepidic growth pattern
 - Typically < 2 cm (>2 cm often with micro-invasion)
- If there is a focus of invasion < 5 mm and <10%, this is termed micro-invasive adenocarcinoma
- Tumor size for T1 or higher is now measurement of invasive component only

Progression from in situ (non-invasive) to Invasive Carcinoma

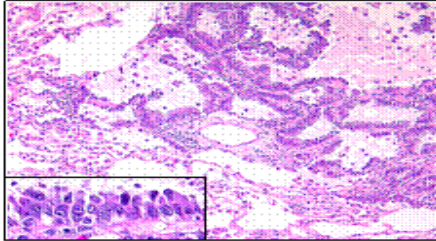
normal → in situ → invasive → metastatic



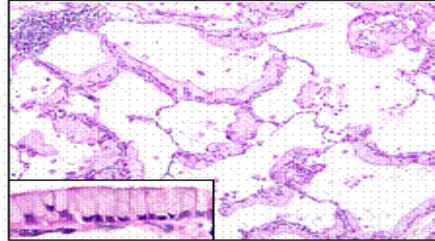
From Polyak, J Clin Invest 2007

Mucinous and Non-Mucinous BAC

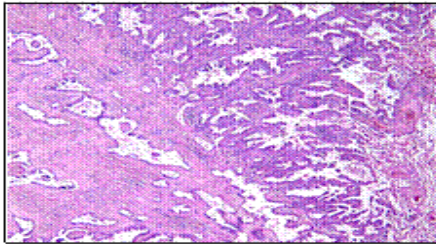
Histology of Adenocarcinoma



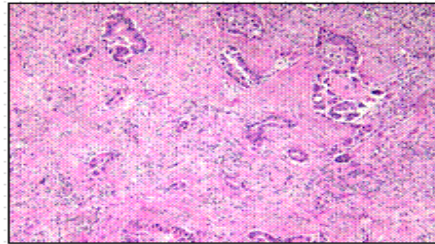
BAC, nonmucinous



BAC, mucinous



Invasive adenocarcinoma with BAC



Invasive adenocarcinoma