chalk it up to IHC

Lung Adenocarcinoma vs. Lung Squamous Carcinoma

Napsin A+	TTF-1 +	Ck 5/14 -	SOX-2-	Well Differentiated Lung Adenocarcinoma
Napsin A+	TTF-1 -	CK 5/14 -	SOX-2-	Poorly Differentiated Adenocarcinoma
Napsin A -	TTF-1+	CK 5/14 -	SOX-2+/-	Neuroendocrine Tumor (verify w/NE marker)
Napsin A -	TTF-1 -	CK 5/14 +	SOX-2+	Squamous Cell Carcinoma

scan this code with your phone to learn more about SOX-2
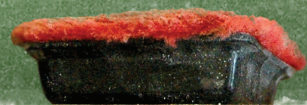
Rev. 0.3

In 2012, there were an estimated 226,160 newly diagnosed lung cancers in the United States, and 160,340 lung cancer deaths. This accounted for more than one quarter of all cancer fatalities that year. It is the second most prevalent cancer in both men and women, after prostate cancer and breast cancer, respectively.[1]

Because of these figures, many new targeted therapies are being developed for the treatment of lung cancer. Some of these therapies, such as bevacizumab, have shown promise in the treatment of lung adenocarcinomas. However, some can have adverse, potentially fatal effects on patients with lung squamous cell carcinomas. To avoid a potentially fatal hemoptysis, it is now essential for pathology labs to run an immunohistochemical panel differentiating lung adenocarcinomas from lung squamous cell carcinomas. [2]

Using antibodies such as TTF-1, Napsin A, Cytokeratin 5, Cytokeratin 14, and SOX-2 a panel can be established that can differentiate lung adenocarcinoma from lung squamous carcinoma and neuroendocrine tumors of the lung. Using such panels can allow clinicians to prescribe the correct targeted therapies to patients.

[1] http://www.cancer.org/Cancer/LungCancer-Non-SmallCell/
    DetailedGuide/non-small-cell-lung-cancer-key-statistics
[2] http://www.lungcanceralliance.org/facing/emerging_
    treatments_avastin.html