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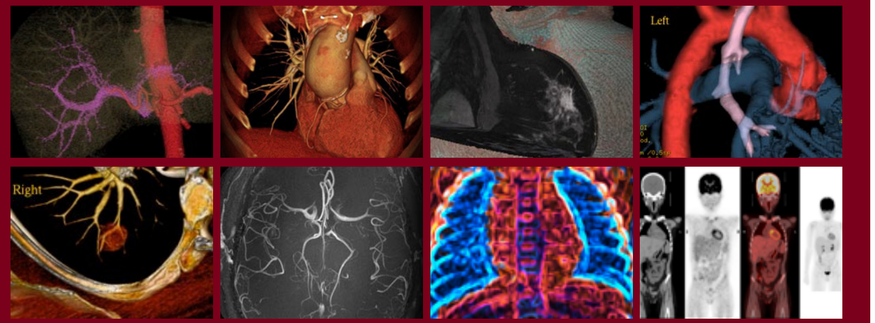

CME RADIOLOGY GRAND ROUNDS

Presents

"Radiologic Implications of the 2011 Lung Adenocarcinoma Classification"

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Memorial Sloan-Kettering Cancer Center

Tuesday, April 2, 2013
7:30 AM - 8:30 AM
Li Ka Shing Center - Room LK130

Breakfast will be served at 7:00 AM

Course Directors: Sanjiv Sam Gambhir, MD, PhD
Andrei Iagaru, MD

ABSTRACT

Worldwide, lung cancer is the most common cause of major cancer mortality in men and the second most common in women. Recent therapeutic advances have led to a revolution in the lung cancer field in discovering therapeutically tractable oncogene dependency, that have major implications for patient evaluation and approach to diagnosis. The 2011 IASLC/ATS/ERS Classification of Lung Adenocarcinoma addresses these issues. This classification was developed based on an evidence-based approach by an international multidisciplinary panel including pathologists, oncologists/respiratory physicians, radiologists, molecular biologists, and thoracic surgeons. Multiple paradigm shifts are outlined that have a major impact on clinical practice for pathologists as well as the entire multidisciplinary team caring for lung cancer patients.

Major changes are also recommended for adenocarcinomas diagnosed in resection specimens:1 1) the term bronchioloalveolar carcinoma (BAC) should not be used anymore, because tumors previously classified under as BAC are represented by five different tumors in this classification; 2), for solitary tumors measuring ≤3cm, new concepts of adenocarcinoma in situ (AIS) and minimally invasive adenocarcinoma (MIA) have been introduced for lesions that have no invasion or ≤5mm invasion, respectively; these patients should have 100% or near 100% disease free survival (DFS); 3) for invasive adenocarcinomas, comprehensive histologic subtyping is recommended for evaluation with classification according to the predominant subtype; 4) micropapillary adenocarcinoma is proposed as a new subtype with a poor prognosis; 5) the term lepidic replaces BAC for tumors with a predominant component formerly called non-mucinous BAC, and the term lepidic predominant adenocarcinoma is recommended along with discontinuing the term "mixed subtype"; 6) invasive mucinous adenocarcinoma (IMA) is the term used to replace those formerly classified as mucinous BAC. IMA are strongly correlated with KRAS mutation Recently strong survival correlations were demonstrated using this classification in Stage I adenocarcinomas with the following 5-year DFS: AIS and MIA (100%), lepidic (90%), acinar (84%), papillary (83%), and there was a poor prognostic group: micropapillary (67%), solid (70%), colloid (71%) predominant tumors as well as invasive mucinous adenocarcinoma (75%).15 Comprehensive histologic subtyping is performed by making semi-quantitative estimation of each of the patterns in 5% increments. A deliberate choice needs to be made to give one pattern the largest percentage. It is useful to record in diagnostic reports each adenocarcinoma subtype that is present with the percentages. This approach may also provide a basis for architectural grading of lung adenocarcinomas. Since this classification was initially published there are a growing number of studies of resected lung adenocarcinomas that have demonstrated its utility in identifying significant prognostic subsets

and molecular correlations according to the predominant patterns. Several articles also have shown good radiologic pathologic correlation with this proposed classification.

In summary this classification outlines many paradigm shifts in lung cancer diagnosis that crystalize the importance of histology and genetics in personalized medicine for lung cancer patients. Evidence-based recommendations are made that will transform the clinical practice of all physicians involved with lung cancer diagnosis including radiologists.

Accreditation

The Stanford University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

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The Stanford University School of Medicine designates this live activity for a maximum of 1.00 *AMA PRA Category 1 Credit(s)™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Cultural and Linguistic Competency

California Assembly Bill 1195 requires continuing medical education activities with patient care components to include curriculum in the subjects of cultural and linguistic competency. The planners and speakers of this CME activity have been encouraged to address cultural issues relevant to their topic area. The Stanford University School of Medicine Multicultural Health Portal also contains many useful cultural and linguistic competency tools including culture guides, language access information and pertinent state and federal laws. You are encouraged to visit the portal: http://lane.stanford.edu/portals/cultural.html