A Mini-Elective in the “Mini-Biopsy”: Making Diagnoses by Fine Needle Aspiration Biopsies with Radiological Correlation

Spring 2017

**Course Dates:** January 6, 13, 20, 27
Fridays, 1:00-3:00 PM

**Maximum Students:** 5

**Class Year:** MS1 and MS2

**Course Director:** Sara E. Monaco, MD
Associate Professor of Pathology

**Contact Information:**
Sara E. Monaco, MD
Aimee Bender (secretary)
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412-623-3765

**Registration:**
Betsy Nero, Office of Medical Education
betsy@medschool.pitt.edu

**Description:**
This mini-elective will involve 4 2-hour sessions that introduce the students to fine needle aspiration (FNA) biopsies. The sessions will involve a combination of power point presentations with handouts teaching the students about the essential components of the FNA (radiology and pathology perspectives), interactive case discussions, and hands-on experiences (performance of an FNA, preparation of cytology smears, review of slides under a microscope). The overall goal is to give students an exposure to the FNA biopsy, a chance to experience cytopathology as a specialty, and to demonstrate the pathologic and radiologic perspectives with respect to FNA biopsies.

**Objectives:**
• To develop an understanding of what an FNA involves and the clinical applications.
• To become familiar with both the cytologic and radiologic approach to diagnosing lesions by FNA.
• To become familiar with how an FNA is performed and how to make cytologic smears.
• To illustrate a variety of cases in which FNA was able to make a diagnosis and impact the clinical management of patients.

**Requirements:**
• Active participation and attendance in all 4 course sessions.
• Reading of handouts and active participation in interactive quiz during final session.
Course Outline:
The course will run for 4 weeks with one 2-hour session per week (Friday afternoons). Groups of no more than 5 students will be enrolled for the mini-elective, in order to give each student the full hands-on experience and due to the limited number of seats available at the multiheaded microscope for the practical session.
All students are welcome to attend, however, students potentially interested in a career in pathology or radiology are particularly encouraged. For students interested in other subspecialities, there will be opportunities to see FNA procedures performed in the operating room, bronchoscopy suite, and GI endoscopy suite.

Course Director:
Sara E. Monaco, MD
Associate Professor of Pathology

Course Faculty:
Liron Pantanowitz, MD
H. Scott Beasley, MD

Location:
UPMC Shadyside, Division of Cytopathology
Cancer Pavilion, 2nd Floor (POB2) (same location as Herberman Confernce Center, but turn right off the elevators for the Cytology Suite, Suite 201- there is a doorbell to ring for access)
Ph#: 412-623-3765 (Secretary: Aimee Bender)

Session 1 (1/6/2017) 1-3pm
Introduction to the FNA Biopsy (Dr. Sara Monaco)
a. Brief introduction to the course with an overview of the FNA biopsy.
b. Hands-on experience in preparation of smears and in performance of the FNA using liver tissue.

Session 2 (1/13/2017) 1-3pm
Interactive FNA Case Discussions & Microscope Tutorial (Dr. Liron Pantanowitz)
a. Interactive discussion of interesting cases in FNA from a variety of different tissues (lymph nodes, soft tissue, lung, liver, etc).
b. Discussion of how ancillary studies can help in making FNA diagnoses (molecular testing, immuno-histochemistry, etc).
c. Review of FNA slides at the multiheaded microscope to demonstrate how a cytopathologist approaches the diagnosis on a routine basis.
d. Introduction to pathology informatics and digital imaging in cytopathology.

Session 3 (1/20/2017) 1-3pm
The Radiological Perspective to FNA Biopsies (Dr. H. Scott Beasley)
a. Brief introduction to the radiologic perspective of FNA biopsies with a focus on the indications, complications, and the procedure in different body sites.
b. Hands-on experience in how radiology performs the FNA biopsy.

Session 4 (1/27/2017) 1-3pm
Interactive Review & Quiz Session (Dr. Sara Monaco)
a. Interactive quiz session using a variety of cases that demonstrate the issues taught in the prior sessions. Handouts will be provided during the lectures and students will use the knowledge to answer the questions and to develop an approach to answering the questions and scenarios.
b. Course wrap up and discussion.