“Can Work Make You Sick?”
Occupational Lung Diseases: A Multidisciplinary Approach Mini-Elective
2010

Course Dates: February 2, 9, 16
Tuesdays, 2:00-4:00 PM

Maximum Students: 8

Class Year: MS2

Course Directors: Anu Sharma, MD

Contact Information: Anu Sharma, MD
412-647-5565
sharmaa3@upmc.edu

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

Description:
This mini-elective is designed to introduce 2nd year medical students (MS-2) to occupational lung diseases and the impact of these conditions on their clinical practice. The nature of toxic agents and particulate matter at workplace, disease causation by these agents and their diagnosis and clinical management will be discussed with a special emphasis on the medicolegal implications and workers’ compensation. The students will also explore these conditions in the context of health surveillance, workplace hygiene and prevention.

Objectives:
1. To develop an understanding of the nature and pathogenesis of lung diseases caused by exposure to particulate matter and toxic chemicals in the workplace.
2. To become familiar with common clinical presentations of occupational lung diseases, techniques for diagnosing these disorders and the approaches to their medical management.
3. To develop an understanding of basics of medical care for occupational lung diseases in the context of workers’ compensation and regulatory issues.

Requirements:
- Active participation in all five sessions.
- Reading assignment, one article per session.
Course Outline
Occupational Lung Diseases: A Multidisciplinary Approach

Course Directors:
Anu Sharma, MD

Faculty:
Department of Pathology:
Anu Sharma, MD
Tim Oury, MD
Department of Pulmonary and Critical Care Medicine:
Christopher Faber, MD

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Location:
All sessions
Scaife Hall, Rooms 464 A&B

Session 1: February 2, 2010
Introduction
Instructors: Anu Sharma, MD; Chris Faber, MD
- Overview and classification of Occupational lung diseases.
  - The students will be introduced to various airborne hazards encountered in a workplace setting.
  - The pathobiology and mechanism of injury will be discussed.
- Workplace hygiene and medical surveillance.

Session 2: February 9, 2010
Evaluation by the Pulmonary Clinician
Instructor: Chris Faber, MD
A hands-on interactive exercise in history-taking and case evaluation of a “demo patient” with suspected exposure to particulate dust at workplace. This session will highlight the following:
- When to suspect an occupational lung disease.
- What questions to ask to establish potential occupational exposure?
- Adjunctive testing: pulmonary function testing, radiological evaluation.
- Need for tissue diagnosis.
- Pulmonary impairment and disability evaluation.

Session 3: February 16, 2010
Lung biopsy specimen: Pathology of occupational lung disease
Instructors: Anu Sharma, MD and Tim Oury, MD
What does a lung biopsy tell you about occupational lung disease?
- Gross appearance of the lungs exposed to dust and toxins.
- Exposure to “dust”: varying microscopic presentations, can you spot silicates, asbestos, coal dust, beryllium, or hard metals on a glass slide?
- So you identified the particulate matter on tissue, can you identify it’s source: An introduction to advanced technologies utilized in lung particulate analysis.