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INTERNAL MEDICINE

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DIFFUSE INFILTRATIVE LUNG DISEASES:

Diagnostic Approaches; Asbestos-Related Diseases

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0:00 INTRODUCTION

'Diffuse infiltrative lung diseases' preferred to other terms: 'miliary lung diseases'; 'diffuse lung diseases'; 'interstitial lung diseases' ... Comprise perhaps 500 distinct diseases ... 3 major groups of disorders: environmental disorders; sarcoidosis; interstitial pneumonias ...

4:05 DIAGNOSTIC APPROACHES

Chest x-ray ... Usually nonspecific: rounded pattern; linear irregular pattern ... May be normal in presence of fairly extensive interstitial disease ... Patient sent to laboratory for screening function studies, normally undergoes studies of mechanical breathing ... X-rays often initially draw clinician's attention to presence of interstitial disease; sometimes a combination of factors makes diagnosis without additional patient history ... Another nonspecific pattern: ground-glass pattern (also known as 'alveolar pattern') ...

17:15 History taking is the most important diagnostic procedure ... Makes diagnosis of diffuse infiltrative lung disease in about 1/3 of patients ... Occupational review is most defective part of average history taking ... "One must account for every single job that the person has ever had" ... Do not rely on the job description (which is fixed by unions and remains same regardless of how job changes) ... Important questions to ask: "What were the tools that were used?"; "What were the materials that were worked on?"; "Were there any intermediary compounds that were used to facilitate the job?"; "What are your recreational activities?" ...

23:25 Other diagnostic approaches ... Symptoms usually not helpful: 50% of patients with infiltrative lung disease complain of dyspnea and nothing else; only other relatively important complaint is joint pains ... Physical examination reveals important leads: nodules under skin, skin changes, palpable nodes; only signs referable to lungs are signs indicating severe and late disease; only early sign of infiltrative lung disease is inspiratory rales ('crackles') ... Additional x-rays of any type are very rarely helpful ... Biopsies of organs other than the lung indicated only if special lead ... 30% of diffuse infiltrative lung diseases do not have any extrapulmonary manifestations nor do they lead to typical secretions ...

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- 27:25 Other diagnostic approaches (continued) . . . Lung biopsy performed in every patient in whom it has been established that: disease is chronic; full use has been made of all examinations that are rapid, inexpensive, and of low mortality/morbidity rate (especially history taking and examination of sputum and of skin tests) . . .

Side B

- 0:00 Thoracic biopsies: supraclavicular or mediastinoscopy only productive if there is hilar adenopathy; ordinary bronchoscopy has no place in diffuse infiltrative lung diseases, but with biopsy it might; transbronchial and open biopsies preferred to needle core biopsy . . . Benefits of making diagnosis with lung biopsy.

4:40 ASBESTOS—RELATED DISEASES

Important characteristics of asbestosis: strictly dose-related; can occur from exposure of only weeks or months (if dose is very large); asbestos disease has very long delay in development regardless of severity of initial exposure ("almost never does anything happen for 15 years") . . . Types of asbestos . . . Interstitial pneumonia as well-known complication of asbestos exposure; various pleural complications as unusual feature of asbestos exposure . . . Diagnosis of asbestosis: all patients with x-ray of grade I or greater probably have pulmonary disease; define patients who have other things that accompany it (crackles, dyspnea, finger clubbing, reduced vital capacity and reduced defusing capacity) . . . Progression in industrial hygiene should decrease incidence of asbestosis . . . Increased prevalence of bronchogenic carcinoma in asbestos exposed persons, both cigarette smokers and nonsmokers (20-30% of asbestos workers who smoke will die of lung cancer) . . . Pleural complications: asbestos plaques (can be misdiagnosed as carcinoma); asbestos calcifications; effusion . . . Mesothelioma: 2-3% of asbestos workers who smoke will die of mesothelioma; can result from very slight asbestos exposure; invariable fatal disease; almost specific for asbestos exposure.

17:40 QUESTION TOPICS

Legal position of individual who has been exposed to asbestos . . . Masks: "I don't think that 8-hour-a-day masks are effective from the psychological and every other standpoint" . . . Asbestos bodies found in sputum: denote exposure but correlate very poorly with disease . . . Lung biopsy: not needed for diagnosis in most instances (occupational history preferred) . . . Asbestos insulation in school walls and ceilings: dangers probably highly exaggerated; heavy coat of paint to bind asbestos might be adequate measure . . . Asbestos fiber in some hair dryers: need for good scientific study; prevalence of asbestos in manufactured products . . . Asbestos handled by asbestos miners is not very respirable.

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