**Misdiagnosed pulmonary tuberculosis**

Laushkina Zhanna  
Novosibirsk Tuberculosis Research Institute, Russia

**Statement of the Problem:** Respiratory diseases are responsible for about a fifth of all deaths worldwide and its prevalence reaches 15% of the world population. Pulmonary tuberculosis, sarcoidosis and lung cancer can resemble each other on radiographic images, which makes it difficult to diagnosis accurately. A negative sputum smear from a patient with history, physical examination, and chest x-ray findings suggestive of tuberculosis (TB) presents a diagnostic dilemma. Purpose of the study was to analyze causes of diagnostic errors and improve the quality of in-hospital management of patients supposed to having of pulmonary TB.

**Methods:** Noncomparative retrospective study, subject of interest were medical records of 230 most difficult cases in which previously established diagnosis of pulmonary TB was rejected. The chances for establishment of true diagnosis and influencing factors were estimated.

**Results:** Diseases initially misdiagnosed as tuberculosis was pneumonia (46%), lung cancer (24%), sarcoidosis (15%), COPD (5%), other diseases (10%). The period from the disease manifestation up to establishment of final diagnosis was 95.5±74.6 (mean±SD) days. Clinicoradiological signs in these cases were more characteristic for TB, than for other pulmonary diseases. Factors found to be associated with false-positive TB diagnosis is: Detection of AFB in sputum (OR 55.7, 95% CI 7.0-444), cavitary pattern on chest X-ray (OR 0.38, 95% CI 0.22-0.66), nonspecific inflammatory findings detected by flexible bronchoscopy (OR 2.7, 95% CI 1.0-7.2), low body weight (OR 9.4, 95% CI 3.5-25.4), age more than 40 years (OR 1.8, 95% CI (1.1-2.7)).

**Conclusion:** Due to high incidence of tuberculosis in our country, there is a tendency for overdiagnosis of tuberculosis. Misdiagnosis was associated with similarity clinical and radiological pattern of lung diseases, misinterpretation of chest X-ray and detection of AFB in sputum. Application of contemporary methodologies of diagnostic tests can help in correct interpretation.

**Biography**

Laushkina Zhanna has been working as a Senior Researcher and Doctor in the Novosibirsk Research Institute of Tuberculosis since 1994. She is studying the problem of differential diagnosis of pulmonary tuberculosis and other lung diseases.

zlaosh@list.ru

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