

## ESTIMATION OF TB INCIDENCE BY LABOR STATUS

Hitoshi HOSHINO, Masako OHMORI, Kazuhiro UCHIMURA, and Yuko YAMAUCHI

**Abstract** [Objective] To estimate TB incidences by labor status in 2005 and trend since 1987.

[Methods] TB cases registered in 2005 are derived from TB surveillance system and categorized by labor status. Populations by labor status in 2005 are derived from national labor force survey. TB incidences by sex, age and labor status (attending school, regular employee, self-employed, temporary & daily employee, housekeepers, jobless & others) were estimated. Differences of TB incidence are discussed with data of population surveys of foreign students/workers and medical/health workers, and other resources of national surveys. Trend of TB incidence by labor status and sex were estimated since 1987 and current problems in tuberculosis control were discussed.

[Results] Estimates of 2005 show higher TB incidences in male and female unemployed/others and male temporary/daily employees and that of housekeepers shows lower incidence. Regular employees and self-employed/house-workers show intermediate level incidences. Incidence of students was highest in 20s due to foreigners from TB prevalent countries. Female regular workers in 20s show higher incidence than

male due to higher incidence among public health/medical employees. Trend of TB incidence since 1987 to 2005 shows stagnation in all labor status during second half of 1990s. In recent years, lower reduction rate was seen in most labor statuses.

[Conclusion] Present estimates of TB incidence by labor status show high TB incidences among unemployed/others, male temporary/daily employees, foreigners, and female public health/medical employees. Recent stagnation in incidence among most labor statuses (especially students and unemployed/others) should be followed-up carefully.

**Key words:** Tuberculosis, Incidence, Labor status, Foreigners

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**Original Article**

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**DISCUSSION ON INCIDENCE OF TUBERCULOSIS PATIENTS  
AMONG NURSES IN OSAKA CITY**<sup>1</sup>Akira SHIMOUCI, <sup>1,2</sup>Satoshi HIROTA, <sup>1,3</sup>Shinichi KODA, and <sup>1,4</sup>Kayo MUI

**Abstract** [Purpose] To analyze conditions of developing TB among nurses and to discuss preventive measures.

[Methods] TB patient cards of nurses and other health workers registered in Osaka City from 1999 to 2003 were studied.

[Results] Incidence rate of TB among female nurse/assistant-nurse was 3.0 times higher than that of all female population. The route of case finding were as follows with descending order, visit to medical facilities with symptoms (55.8%), regular health check (35.8%), individual health check (5.8%), and contact examination (2.5%). Among risk factors related to the development of TB work in hospitals account for 55.0% in nurse patients of all ages, 72.5% in 20s, 47.4% in 30s, 37.5% in 40s, 36.4% in 50s and 0% in 60s. Individual risk factors were identified as follows in descending order, "TB patients diagnosed in the hospital." (10.0%), "examined at TB contact examination." (9.2%), "history of TB treatment at 18 years of age and over" (7.5%), "working experience in TB hospital/TB ward." (6.7%), "TB patients diagnosed among colleague." (5.0%), "increased reaction of tuberculin skin test after employment." (2.5%), "diagnosis of

'healed TB lesion' at regular health check." (1.7%), "default of chemoprophylaxis" (1.7%). Among various risk factors, "examined at TB contact examination" and "TB patients diagnosed in the hospital" are the two most common factors and occupied 38.8% in patients in 20s.

[Discussion] Therefore it is important to promote further nosocomial TB infection control with a view to lower incidence rate of TB among nurses, which is 3 times higher than that of all female population.

**Key words** : Nurses, Tuberculosis, Nosocomial infection, Risk factors for infection, Contact examination

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————— **Case Report** —————

**A CASE OF FATAL LIVER FAILURE DUE TO ANTI-TUBERCULOUS THERAPY**

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and <sup>2</sup>Yumiko KIMURA

**Abstract** A 65-year-old female was started anti-tuberculous therapy for her pulmonary tuberculosis on admission. Liver dysfunction had occurred on 33rd day after starting treatment. AST was elevated to 301 IU/L, and ALT was also elevated to 141 IU/L. Therefore, all medicated drugs were stopped. She had jaundice on 42nd day and liver failure deteriorated. She was medicated with steroids, but she died by liver failure on 64th day. This is a rare case of fatal liver failure due to anti-tuberculous therapy.

**Key words:** Anti-tuberculous drug, Pulmonary tuberculosis,

Standard therapy, Side effect, Drug induced liver dysfunction

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————— Case Report —————

A CASE OF BOTH T- AND B-CELL MARKERS POSITIVE  
PYOTHORAX-ASSOCIATED LYMPHOMA

Hirokazu TANIGUCHI, Tomomi ICHIKAWA, and Saburo IZUMI

**Abstract** A 84-year-old man with a history of pulmonary tuberculosis admitted to our hospital due to painful swelling in right front chest wall. His chest CT shows a tumor at right chest wall and right chronic empyema. Histopathologic findings from biopsy revealed both T- and B-cell markers positive non-Hodgkin's lymphoma, and we diagnosed him pyothorax-associated lymphoma. Irradiation resulted in tumor shrinkage, and a pain of tumor disappeared. T- and B-cell markers positive pyothorax-associated lymphoma is rare.

**Key words:** Pyothorax-associated lymphoma, B-cell, T-cell,

Radiation

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A CASE OF PULMONARY TUBERCULOSIS  
WITH BOTH A SOLITARY NODULE AND ENLARGED LYMPH NODES  
SHOWING INTENSE UPTAKE ON  
<sup>18</sup>F-FLUORO-DEOXY GLUCOSE POSITRON EMISSION TOMOGRAPHY (<sup>18</sup>FDG-PET)  
REQUIRING DIFFERENTIATION WITH LUNG CANCER

Shigenori ISHIKAWA, Shuichi YANO, Kanako KOBAYASHI, Hirokazu TOUGE,  
Yoshiyuki TOKUDA, Toshikazu IKEDA, and Hiroyasu TAKEYAMA

**Abstract** A 63-year-old man was admitted to our hospital for the evaluation of an abnormal nodule in lung. Chest CT demonstrated a smooth nodular shadow in the left S<sup>6</sup> and enlarged left hilar and mediastinal lymph nodes. Local uptake in these nodes was demonstrated on <sup>18</sup>FDG-PET. Although bronchoscopic study was performed, definitive diagnosis had not yet been determined. After one year, the nodular shadow increased in its size. To confirm the diagnosis, VATS was performed. The histological findings showed a caseating epithelioid-cell granuloma and culture of the specimen was positive for *Mycobacterium tuberculosis*. This case suggested the difficulty in distinguishing lung cancer from solitary tuberculous nodules by using <sup>18</sup>FDG.

**Key words** : Solitary nodule, Enlarged lymph nodes, <sup>18</sup>F-fluoro-deoxy glucose positron emission tomography (<sup>18</sup>FDG-PET), Video-assisted thoracoscopic surgery (VATS)

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————— The 82nd Annual Meeting Educational Lecture —————

OVERVIEW OF RESPIRATORY INFECTION CAUSED BY  
NONTUBERCULOUS MYCOBACTERIA

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and Masao TATEYAMA

**Abstract** Recently, the clinical importance of nontuberculous mycobacteria (especially, *Mycobacterium avium* complex [MAC] respiratory infection) has been increasing. In addition, an official ATS/IDSA statement about diagnosis, treatment, and prevention of nontuberculous mycobacterial diseases has been published in February, 2007. In this review article, essence of this official statement will be introduced. In MAC respiratory infection, i) primarily fibrocavitary disease, ii) nodular/bronchiectatic disease, and iii) hypersensitivity-like disease are identified, and i) and ii) are clinically important. Primarily fibrocavitary disease is characterized by cavitary lesions in upper lung fields in elderly subjects, smoking patients, or patients with pneumoconiosis. Nodular/bronchiectatic disease is characterized by centrilobular nodules and diffuse bronchiectases in the right middle lobe and the left lingula in middle-aged women. In addition, disseminated MAC disease in patients with acquired immunodeficiency syndrome should be considered. Further studies concerning

transmission route as well as mechanism of MAC disease should be performed.

**Key words:** Non-tuberculous mycobacterium, *Mycobacterium avium* complex, Clinical features, Radiological findings, Pathological findings

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