

## Original Article

CLINICAL ANALYSIS OF PULMONARY TUBERCULOSIS DETECTED  
DURING FOLLOW-UP OF OTHER UNDERLYING DISEASES

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**Abstract** [Objective] The objects of this study were to analyze clinically the outpatients and inpatients who were diagnosed as pulmonary tuberculosis during the follow-up of other underlying diseases at our affiliated hospitals and to review the past problems and to discuss how to improve the situation.

[Methods] Sixty five outpatients or inpatients diagnosed as pulmonary tuberculosis during the follow-up of other underlying diseases were collected from 508 patients with pulmonary tuberculosis at our affiliated hospitals over the past 10 years.

[Results] The proportion of elderly patients over 65 years old among 65 index cases was significantly higher as compared to the control group. Forty three of these index patients were outpatients and 22 were inpatients. The most frequent underlying diseases excluding respiratory diseases were malignant diseases followed by diabetes mellitus, gastrointestinal diseases and psychosomatic diseases in order. Pulmonary tuberculosis without clinical symptoms was detected by periodic chest X-ray in 21 cases (32%). There were some severe TB cases caused by the doctor's delay who were followed for malignant or psychosomatic diseases.

[Conclusion] Although many doctors except for respiratory

specialists tended to pay attention to pulmonary tuberculosis as a possible complication during periodic health examination, further intensive education regarding pulmonary tuberculosis is required for doctors who treat malignant or psychosomatic diseases at special hospitals because TB patients who were smear positive when they were detected may cause outbreak of tuberculosis in the hospital.

**Key words** : Pulmonary tuberculosis, Underlying disease, Malignant disease, Psychosomatic disease, Diabetes mellitus

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## Original Article

THE USEFULNESS OF LYMPHOCYTE STIMULATION TEST (LST)  
IN SIDE EFFECTS OF ANTITUBERCULOSIS DRUGS

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and <sup>2</sup>Shinji SHISHIDO

**Abstract** [Purpose] The usefulness of the lymphocyte stimulation test (LST) was examined in patients who arose side effects to antituberculosis drugs.

[Methods] The usefulness of LST was examined in 36 patients from January, 1999 to July, 2002.

[Results] There were 11 LST positive patients, and the LST positive rate was 30.6%. The causing agents determined by the LST positive patients were INH in 7, RFP in 3 and EB in one. The sensitivity of LST was 46.2% and the specificity of LST was 76.6%.

[Conclusion] LST positive rate of antituberculosis drugs was low and it was difficult to determine the causing drugs by LST.

**Key words** : Lymphocyte stimulation test (LST), Antituberculosis drugs

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A CASE OF PULMONARY TUBERCULOSIS COMPLICATED WITH  
TUBERCULOSIS OF BILATERAL CERVICAL LYMPH NODES  
AND EXACERBATED PERICOSTAL ABSCESS

Noritaka YAMADA, Yuko ITO, Kunihiro GOTO, Takayuki ANDO,  
Yukio SUDO, Kenji OGAWA, and Masao TANO

**Abstract** A 23-year-old man was admitted to our hospital because of cough and sputum in April 2001. A chest roentgenogram revealed infiltrative shadow with cavity formation in the bilateral lung fields. He was treated with sensitive anti-tuberculous drugs. After starting the antituberculous therapy with INH, RFP, EB and PZA, bilateral cervical lymphadenopathy developed. Three months later, pericostal abscess appeared in the left anterior chest wall. Microscopic examination of the specimen obtained by needle aspiration biopsy disclosed positive for acid-fast bacilli. Smears of the pus showed acidfast bacilli identified as *Mycobacterium tuberculosis* by DNA-DNA PCR method. He developed tuberculous bilateral cervical lymphadenopathy and pericostal abscess during the course of antituberculosis chemotherapy. Drug sensitivity test revealed that tubercle bacilli in this case were sensitive. One year after the administration of chemotherapy, cervical lymphadenopathy and pericostal abscess were im-

proved. Both masses were discontinuous with pulmonary tuberculosis and the possibility of lymphogenous spread of organism was speculated as its etiology. We assumed that both masses were due to paradoxical response to the anti-tuberculosis chemotherapy.

**Key words:** Pulmonary tuberculosis, Tuberculosis of bilateral cervical lymphadenopathy, Exacerbated pericostal abscess, Paradoxical response

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TUBERCULOSIS CONTROL IN KAWASAKI CITY  
— Promoting the DOT Program —

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**Abstract** Kawasaki City initiated the DOT (Directly Observed Therapy) program in 2000 to improve tuberculosis (TB) control in the homeless persons and individuals living in temporary subsidized housing. The program was implemented as an additional program to the city's control policy of mass TB screenings for these groups. The DOT program was implemented through participation of numerous agencies sharing common goals. Through coordination and cooperation, a strategy suitable for the regional level was developed. Sectors involved were not only the TB control staff within the public health centers but also the entire public health centers, the welfare administrative division, the city's TB task force and homeless task force, and regional medical institutions. With the implementation of the DOT program, proper medical treatment, improved patient care, and various other measures were performed, and this led to the strengthening of TB control not only in designated DOT-implemented areas but

also in the entire city. As a result, the treatment outcomes improved, and incidence rate of TB began to decrease.

**Key words:** Tuberculosis control, Urban tuberculosis, Homeless persons, Assured treatment, DOT (directly observed therapy)

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DIABETES AND TUBERCULOSIS — BAD COMPANIONS —

Ryuzo KAWAMORI

**Abstract** Diabetes and tuberculosis are bad companions each other. In this clinical review article on diabetes, the pathophysiology of diabetes is documented from the viewpoint of both insulin secretory dynamics and insulin action on various target organs. The mechanisms why atherosclerosis is accelerated in diabetes is also mentioned.

Nowadays, there are many modalities to correct the deranged glucose fluxes, thus it is not difficult to maintain near-normal glycemic excursions in diabetic patients. Strict glyce-mic regulation is obligatory if the patient with tuberculosis has diabetes.

**Key words:** Diabetes, Glucose flux, Insulin secretory dynamics, Insulin action, Atherosclerosis

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