Methods: We performed a retrospective study between January 2011 and December 2016 in the Chung-Ang university hospital. We included all culture positive PTB patients who were older than 15 years old. We checked demographic parameters, laboratory parameters, initial impression, initial visiting date and treatment starting date.

Results: During these periods, 627 patients were diagnosed as culture proven PTB. The median hospital delays were 4 days (IQR 2-10), and 70 (11.2%) experienced hospital delay more than 4 weeks. In univariate analysis, the risk factors for hospital delays more than 4 weeks were female (p=0.03), age over 65 years old (p=0.02), absence of cavity (p<0.01), history of COPD (p=0.03), history of malignancy (p=0.02), negative sputum smear (p<0.01), unchecking sputum TB-PCR (p<0.01), initial impression of non-TB (p<0.01), and use of antibiotics (p=0.01). In multivariate analysis, absence of cough (p=0.008), female (p=0.045), over 65 years old (p=0.022), smear negative (p=0.002), unchecking sputum TB-PCR (p<0.001), and initial impression of non-TB (p<0.001) were risk factors for hospital delays more than 4 weeks. Initial impression of these 627 patients was PTB (n=411), pneumonia (n=134), TB scar (n=26), malignancy (n=23), non-tuberculous mycobacterium lung disease (n=9) and others (n=24). Among 411 patients those who suspected as PTB, only 2 patients experienced hospital delay more than 4 weeks. However, 134 patients those who suspected as pneumonia, 30 (22.4%) experienced hospital delay more than 4 weeks.

Conclusions: In intermediate TB burden country, 11.2% experienced hospital delay more than 4 weeks and the most important risk factor was initial impression of non-TB.

PREVALENCE AND RISK FACTORS OF DRUG RESISTANT EXTRAPULMONARY TUBERCULOSIS

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Background and Aims: Physicians are usually aware of the occurrence of drug resistant (DR) pulmonary tuberculosis (PTB), but lack of concern for DR-extrapulmonary TB (EPTB). Data regarding the prevalence and risk factors of DR-EPTB remain limited. Our study aimed to determine the prevalence and risk factors of DR-EPTB.

Methods: Retrospective study was performed in patients who had culture-proven Mycobacterium tuberculosis (MTB) from various specimens between January 2013 and December 2015 in Ramathibodi Hospital, Mahidol University. Patients were classified into three groups; PTB, EPTB, and concomitant PTB and EPTB (PTB+EPTB). Clinical data, chest radiographic extent of disease, and patterns of DR were collected.

Results: There were 1,014 culture-proven MTB specimens (716 pulmonary specimens and 298 extrapulmonary specimens) from 986 patients. The prevalences of DR-TB in each group are shown in Table 1. Of 338 EPTB patients, the extent of radiographic disease was associated with isoniazid-, rifampicin-, and multidrug-resistant TB (p = 0.026, 0.002, and < 0.001, respectively). Previous history of TB and use of steroid/immunosuppressive drugs were also associated with rifampicin-, and multidrug-resistant TB in multivariate analysis (OR 38.0; 95% CI 3.6-395.9; p = 0.002 and OR 17.3; 95% CI 2.7-108.7; p = 0.002, respectively for rifampicin- and OR 72.4; 95% CI 5.1-1037.2; p = 0.002 and OR 16.0; 95% CI 2.1-118.4; p = 0.007, respectively for multidrug-resistant TB).

Conclusions: The prevalence of DR-EPTB was high in patients who had concomitant PTB. Although the prevalences of rifampicin- and multidrug-resistant TB were low in isolated EPTB, the prevalence of isoniazid-resistant TB remained high. Therefore, drug susceptibility testing should be performed in EPTB patients, especially who carry the aforementioned risk factors.

Table 1. The prevalences of drug resistant tuberculosis (TB) in pulmonary TB (PTB), extrapulmonary TB (EPTB), and concomitant pulmonary and extrapulmonary TB (PTB+EPTB)

|                | PTB (n = 648) | EPTB (n = 218) | PTB + EPTB (n = 120) |
|----------------|--------------|---------------|---------------------|
| Isoniazid-     |              |               |                     |
| resistance     | 73 (11.3)    | 17 (7.8)      | 16 (13.3)           |
| Rifampicin-    | 16 (2.5)     | 1 (0.5)       | 7 (5.8)             |
| resistance     |              |               |                     |
| Ethambutol-    | 2 (0.3)      | 3 (1.4)       | 0 (0.0)             |
| resistance     |              |               |                     |
| Streptomycin-  | 48 (7.4)     | 14 (6.4)      | 15 (12.5)           |
| resistance     |              |               |                     |
| Multidrug-     | 12 (1.9)     | 1 (0.5)       | 6 (5.0)             |
| resistance     |              |               |                     |
| p value        |              |               | 0.022               |

Data are presented as n (%).

THE NUTRITIONAL STATUS ASSESSED BY MALNUTRITION SCREENING TOOLS IN PULMONARY TUBERCULOSIS AND ITS RELATION TO BACTERIAL LOAD

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Background and Aim: Tuberculosis (TB) remains a major health problem worldwide and Indonesia occupied the second highest prevalence of TB cases in the world. Nutritional status known had correlation with TB diagnosis. Malnutrition screening tools (MST) is commonly used in hospitalized patients to determine the risk of malnutrition. Investigate the nutritional status assessed by MST and its relation to bacterial load was aim of this study.

Methods: A cross sectional study was conducted to new case TB patients of 10 primary health cares in Bekasi, West Java. All subjects underwent several procedures such as interview, physical examination, microbiological sputum smear, chest X-ray and blood examination. We pooled demography, nutritional status, bacterial load of sputum smear, albumin and hemoglobin level data. We classified bacterial load as 2 groups which were 1+, 2+ and 3+ group and negative-scanty group because of statistical reason. Chi-square was performed for data analyzing purpose.

Results: 185 subjects were participated in this study, their median age was 37 years, 61.6% among them were male, 44.3% subjects were smokers, 27.6% subjects were household contact of TB cases, 27% subjects had cavity in their chest X-ray, 18.4% subjects had hypo albumin status, and 54.6% subjects had anemia. The MST score higher than 2 known as group with malnutrition risk. Nutritional status in term of malnutrition risk had correlation with bacterial load with unadjusted odds ratio of...