

## **GENDER DIFFERENCE IN THE INCIDENCE OF TUBERCULOSIS IN TAIPEI, TAIWAN: 1998-2005**

Pair-Dong Wang

Department of Internal Medicine

Taipei City Hospital, Branch for Disease Control and Prevention

**BACKGROUND/AIMS:** Global differences in the incidence of gender-specific tuberculosis remain largely unexplained. The objective of this study was to explore the gender differences in the incidence and clinical manifestations of tuberculosis in Taipei, Taiwan.

**METHODS:** Data of all 15,853 tuberculosis cases recorded from 1998 through 2005 were obtained from the National Tuberculosis Registry Center. A retrospective epidemiologic analysis of the incidence rate of gender-specific tuberculosis was conducted. Stratified analyses were performed on pulmonary cases, extrapulmonary cases and eight anatomic sites of extrapulmonary cases. We used the  $\chi^2$  or Fisher exact tests, as appropriate, to test the differences between male and female patients.

**RESULTS:** During this study period, the male/female incidence rate ratio was 1.77. Differences in gender-specific rates were noted in patients older than 25 years, with the highest male/female ratio noted in patients older than 65 years. Moreover, it is somewhat contrary to our expectation that the gender-specific incidence ratio of the patients 25-34 years old was 0.83. Stratified analysis showed that the gender difference ratio of extrapulmonary cases was 1.54, in these cases the effect was less pronounced. In those with plural tuberculosis, the ratio was between 1.33 and 2.14. In contrast, the ratio for those with lymphatic tuberculosis was between 0.63 and 2.42 and the age-specific incidence showed an apparent bimodal pattern. One peak difference in the gender ratio was at ages 25-34 years, and the other was at older than 65 years.

**DISCUSSION/CONCLUSIONS:** There are apparent gender differences in the rates of tuberculosis in Taipei. This expands the knowledge base regarding the epidemiology of tuberculosis and enhances understanding of gender differences in tuberculosis. The results may be useful in improving the effectiveness of TB control programs in Taipei, Taiwan.

**Key words:** Tuberculosis, gender difference, Taipei, Taiwan