

## Original Article

SHIFT IN THE BCG VACCINATION AGE REGARDING  
THE 2013 REVISION OF  
THE JAPANESE VACCINATION SCHEDULE

Kemal SASAKI

**Abstract** [Objectives] In Japan, infants ranging from 3 to 4 months of age were excluded from the standard vaccination period for Bacillus Calmette-Guérin in 2013. The aim of this study was to evaluate the contribution of immunization methods and the means of communication employed by municipalities to inform the parents of infants about this revision on the shift in the immunization age. [Methods] In 35 municipalities, I assessed the monthly proportion of infants vaccinated between 3 and 4 months of age relative to all infants in 2013, in reference to the immunization method (group or individual immunization) and the application of two-way communication (TWC) between the municipalities and parents. The types of communication that were defined as TWC were as follows: home guidance and face-to-face explanation at the health examination for the infants. [Results] In most municipalities, the proportion of infants vaccinated between 3 and 4 months of age relative to all infants gradually decreased after following revision of the vaccination period. No significant differences were observed in these proportions between the municipalities with group immunization and those with individual immunization; however, the variability of these proportions among the municipalities with group immunization increased with duration. In the municipalities with individual immunization schedules, the application of TWC to parents promoted the decrease of infants vaccinated between 3 and 4 months of age, as compared to that seen in the other municipalities. [Conclusions] The municipalities with group immunization were characterized by variation in the shift of the immunization age. TWC with parents accelerated this shift in the municipalities with individual immunization.

**Key words** : Bacillus Calmette-Guérin, BCG, Vaccination, National immunization program, Group immunization, Individual immunization, Communication

## Original Article

TYPING OF *MYCOBACTERIUM TUBERCULOSIS* STRAINS  
IN FUKUOKA PREFECTURE, JAPAN,  
USING 24-LOCUS VARIABLE-NUMBER TANDEM-REPEAT TYPINGAkira OISHI, Eriko MAEDA, Koichi MURAKAMI, Masahiro NISHIDA,  
and Nobuyuki SERA

**Abstract** [Aim] To determine genotypes of *Mycobacterium tuberculosis* strains in Fukuoka Prefecture, Japan.

[Methods] A total of 296 isolates from 296 tuberculosis patients is tested using 24-locus variable-number tandem-repeat (VNTR) typing. We also determined whether these isolates and a further 10 were Beijing lineage.

[Results] The 296 isolates were classified into 264 VNTR types, and re-classified into 25 clusters when each cluster was defined as isolates being identical to VNTR types in 24 regions, or in 23 regions with the exception of one hypervariable region. Two clusters were shown to be identical to that of the Kansai regional epidemic. Regarding regional diversity, hypervariable regions showed relatively higher variation of isolate types. The Beijing lineage accounted for 78.1% of all isolates, which was similar to the value obtained from Kobe (78.5% in 2009) in the Kansai region.

[Discussion] Six isolates from Fukuoka Prefecture overlapped with those from Kansai region with respect to domi-

nant VNTR type, while clusters from Fukuoka Prefectural isolates were unique, which may be a feature of Fukuoka prefectural isolates.

[Conclusion] These data are likely to be useful for public health measures in the area.

**Key words** : *Mycobacterium tuberculosis*, Variable-number tandem-repeat (VNTR), Molecular epidemiology, Beijing lineage

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## CLINICAL STUDY OF 29 CASES OF ENDOBRONCHIAL TUBERCULOSIS

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**Abstract** [Background] Endobronchial tuberculosis (EBTB) is defined as a tuberculosis infection of the tracheobronchial tree and is often misdiagnosed as bronchial asthma or bronchitis owing to a lack of typical imaging findings.

[Aim] The aim of this study was to elucidate the clinical characteristics of EBTB.

[Method] We retrospectively studied EBTB patients hospitalized at the National Hospital Organization Kinki-chuo Chest Medical Center (Sakai City, Japan) between January 2005 and April 2014.

[Result] A total of 29 patients (8 men and 21 women) were enrolled in this study. The patients' ages ranged from 17 to 86 years. Cough was the most frequently reported symptom. The interval between the appearance of symptoms and an EBTB diagnosis was significantly longer than usual when there was an initial misdiagnosis of bronchial asthma. The most frequent finding of fiber-optic bronchoscopy performed after more than 1 month of treatment was a V-type scar based on Arai's

classification system.

[Conclusion] A misdiagnosis of EBTB as bronchial asthma leads to a significant delay in correct diagnosis and treatment. EBTB must be included in the differential diagnoses of chronic cough and airway constriction sound.

**Key words** : Tuberculosis, Endobronchial tuberculosis, Bronchoscopy, Bronchial asthma, Bronchostenosis

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