**Original Article**

# SPECIFICITY EVALUATION OF TRCReady® MTB AND TRCReady® MAC FOR IDENTIFYING *MYCOBACTERIUM TUBERCULOSIS* COMPLEX, *MYCOBACTERIUM AVIUM* AND *MYCOBACTERIUM INTRACELLULARE*

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**Abstract** [Objective] To evaluate the specificity of TRCReady® MTB and TRCReady® MAC (Tosoh Bioscience, Japan) for identifying *M.tuberculosis* complex (MTC), *M.avium* and *M.intracellulare*.

[Method] We tested TRCReady® MTB and TRCReady® MAC using TRCReady®−80 (Tosoh Bioscience, Japan), which is an automated nucleic amplification test instrument, with 151 *Mycobacterium* species (4 MTC and 147 Non-tuberculosis *Mycobacterium* (NTM) type strains).

[Results] The specificity of TRCReady® MTB was 100%, however, TRCReady® MAC misidentified a total of six NTMs, *M.arosiense*, *M.chimaera*, *M.colombiense*, *M.marseillense*, *M.vulneris* and *M.yongonense*, as *M.intracellulare*. Then, the specificity for TRCReady® MAC was 96.0% (145/151).

[Discussion] TRCReady® MTB and TRCReady® MAC are highly specific for identifying MTC, *M.avium* and *M. intracellulare*. Six NTM species which have been rarely isolated in Japan showed false-positive results as *M.intracellulare*. However, when a sample was identified as *M.intracellulare*, the phenotypic characteristics like colony morphology would be carefully examined.

**Key words**: TRCReady, *M. tuberculosis* complex, *M. avium*, *M. intracellulare*, *Mycobacterium* species identification

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Review Article

# LEGACIES OF SURGERY FOR TUBERCULOSIS AND SUCCESSION TO THE NEXT GENERATION

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**Abstract** A symposium entitled "Legacies of surgery for tuberculosis and succession to the next generation" was held at the 89th annual meeting of The Japanese Society for Tuberculosis in Gifu. The purpose of the symposium was to look back at the history of surgery for tuberculosis and development of surgical techniques. The contribution of those techniques to the next generation was also discussed. Many unique and universal techniques such as segmentectomy, thoracoplasty, muscle flap plombage, greater omental plombage, open window thoracotomy, cavernostomy, and decortication have matured during a long history. Based on the development of anti-tuberculous drugs, surgery seems to have a less important role. However, surgical techniques are still required for multi-drug resistant tuberculosis and non-tuberculous mycobacteriosis. Core techniques are applied in the surgery for many thoracic diseases, such as lung cancer, mycosis, pyothorax, and mesothelioma. This manuscript summarizes the presentations.

**Key words**: Surgical treatment, Tuberculosis, Non-tuberculous micobacteriosis, Micosis, Pyothorax, Air-way stenosis

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Review Article

# TREATMENT OF LATENT TUBERCULOSIS INFECTION WITH A COMBINATION OF ISONIAZID AND RIFAMPICIN

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**Abstract** [Purpose] To conduct a literature review on clinical studies and national guidelines in various countries, for the purposes of facilitating discussion regarding whether latent tuberculosis infection (LTBI) treatment regimens composed of isoniazid and rifampicin should be introduced in Japan.

[Methods] For clinical studies, 23 non-randomized studies and 10 randomized studies in the literature were reviewed.

[Results] In patients who had received treatments composed of isoniazid and rifampicin ([HR]; largely 3 months), compared with those who had received isoniazid monotherapy ([H]; largely 6 to 9 months), both frequency and severity of liver dysfunction tended to be reduced, but adverse drug effects increased in general. Treatment completion rate tended to be higher in those who had received HR than in those who had received H. Preventive effects of HR seemed to be at least equivalent, or somewhat superior, to H. Many national guidelines of the European Union and other countries reviewed in this study recommended HR as an LTBI treatment regimen, and generally provided a high level of evidence.

[Conclusion] 3HR treatment has been well studied in many clinical and randomized studies, and seems to have garnered a high level of merit in order to be introduced as one of the LTBI treatment regimens in Japan.

**Key words** : Tuberculosis, Latent tuberculosis infection, Isoniazid, Rifampicin, Guideline

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