

Reference to the Mutations in the *embB* Locus among Korean Clinical Isolates of *Mycobacterium tuberculosis* Resistant to Ethambutol

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Sir,

Recently in your journal, Lee et al.¹ demonstrated mutation in the *embB* region in low-level resistant *Mycobacterium tuberculosis*. We support their finding that isolates with a Minimum Inhibitory Concentration (MIC) level lower than 20 µg/ml may not contain any mutation in the assigned hot spot for ethambutol resistance. We analyzed a limited number of isolates in our lab with MIC levels lower than 10 µg/ml and could not find any polymorphism in the ethambutol resistance determining region (ERDR), Met306 (manuscript under preparation). Such isolates are categorized as moderately resistant.² However, the novel types of mutations mentioned by Lee et al.,¹ including A314G, Y322C and D331Y, seem to be ambiguous. This is because the authors have mentioned amino acid Alanine (A), Tyrosine (Y) and Aspartic acid (D) at codon positions 314, 322 and 331, respectively, whereas the deciphered genome sequence of the standard reference strain *Mycobacterium tuberculosis* H37Rv reveals Glycine (G), Tryptophan (W) and Glycine (G) amino acid at codon positions 314, 322 and 331, respectively.³ Whether the authors have used some other reference strain is also not mentioned.

REFERENCES

1. Lee H, Myoung HJ, Bang HE, Bai GH, Kim SJ, Kim JD, et al. Mutations in the *embB* locus among Korean clinical isolates of *Mycobacterium tuberculosis* resistant to Ethambutol. *Yonsei Med J* 2002;43:59-64.
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MICs and MBCs for *Mycobacterium avium* complex and *Mycobacterium tuberculosis*. *Antimicrob Agents Chemother* 1986;30:927-32.

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Author's Reply

We thank Drs. Ankita Garg and A. Ayyagari for their careful investigation of all the mutations we listed in the Table 2 of our article¹ and for their questioning wrong amino acids in the codon numbers of the *embB* gene. From thorough examination of all sequence data, the authors found major mistakes in numbering some of the codons of the *embB* gene of *Mycobacterium tuberculosis*. The "A314G, Y322C and D331Y" should read "A313G, Y319C and D328Y." Subsequently, we publish correct codon numbers in the text and table as "Erratum".

REFERENCE

1. Lee H, Myoung HJ, Bang HE, Bai GH, Kim SJ, Kim JD, et al. Mutations in the *embB* locus among Korean clinical isolates of *Mycobacterium tuberculosis* resistant to ethambutol. *Yonsei Med J* 2002;43:59-64.

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