[Online Data Supplement]

Intermittent Antibiotic Therapy

for Recurrent Nodular Bronchiectatic Mycobacterium avium Complex Lung Disease

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Patient	Isolate	Etiology	DST [#]	Colony morphotype	rrl^{\dagger}	Rep-PCR pattern	Recurrence
A1	A1-D	M. avium	S	R	AA	А	Reinfection
	A1-R	M. avium	S	R	AA	В	
A2	A2-D	M. avium	S	R	AA	А	Reinfection
	A2-R	M. avium	S	R	AA	В	
A5 [§]	A5-D	M. avium	S	R	AA	А	Relapse
	A5-R	M. avium	S	R	AA	А	
A7	A7-D	M. avium	S	Mixed [¶]	AA	A	Reinfection
	A7-R	M. avium	S	R	AA	В	
A14	A14-D	M. avium	S	R	AA	Α	Reinfection
	A14-R	M. avium	S	R	AA	В	
A22 [§]	A22-D	M. avium	S	R	AA	Α	Reinfection
	A22-R	M. avium	S	R	AA	В	
A23	A23-D	M. avium	S	R	AA	Α	Reinfection
	A23-R	M. avium	S	R	AA	В	
	A23-R2	M. avium	S	R	AA	С	
A51 [§]	A51-D	M. avium	S	S	AA	A	Reinfection
	A51-R	M. avium	S	S	AA	В	
I4	I4-D	M. intracellulare	S	S	AA	A	Reinfection
	I4-R	M. intracellulare	S	R	AA	В	
I6	I6-D	M. intracellulare	S	R	AA	Α	Relapse
	I6-R	M. intracellulare	S	R	AA	А	-
I8	I8-D	M. intracellulare	S	R	AA	A	Reinfection
	I8-R	M. intracellulare	S	Mixed	AA	В	
I10 [§]	I10-D	M. intracellulare	S	Mixed	AA	A	Reinfection
	I10-R	M. intracellulare	S	Mixed	AA	В	
	I10-R2	M. intracellulare	S	S	AA	С	
I15	I15-D	M. intracellulare	S	R	AA	A	Reinfection
	I15-R	M. intracellulare	S	R	AA	В	
I19 [§]	I19-D	M. intracellulare	S	R	AA	А	Reinfection
	I19-R	M. intracellulare	S	S	AA	В	

TABLE S1 Mycobacterial characteristics of initial and recurrent *Mycobacterium avium* complex isolates from 14 patients.

Definition of abbreviations: DST = drug susceptibility testing; S (in the DST column) = susceptible; S (in the colony morphotype column) = smooth; R (in the colony morphotype column) = rough.

Isolate column indicates the patient number, species (A# designates *M. avium* and I# designates *M. intracellulare*), and initial diagnosed strain (-D), recurrent strain (-R), or second recurrent strain (-R2).

[#] Microdilution method for clarithromycin.

[¶] Isolates included colonies of both smooth and rough morphotypes.

[†] Nucleotides 2058–2059 (*Escherichia coli rrl* numbering) of *rrl* for which the wild-type sequence is AA. A = adenine.

[§] Five patients received intermittent therapy for retreatment.

FIGURE S1 DiversiLab rep-PCR profiles and corresponding dendrogram obtained using Kullback-Leibler divergence analysis of eight *M. avium* (A) and six *M. intracellulare* (B) single colonies from 14 patients who developed recurrence of MAC lung disease caused by the same species. MAC isolates were propagated on Middlebrook 7H10 agar plates (Difco Laboratories) supplemented with 10% (vol/vol) oleic acid-albumin-dextrose-catalase (OADC) (BD Diagnostics) to obtain a single colony. The morphotype of each single colony was classified macroscopically as smooth or rough. If an isolate had various colony morphotypes, the single colony number was subdivided according to the colony morphotype [s (smooth) or r (rough)]. At least one and up to three single colonies of each isolate were genotyped. A total of 52 M. avium single colonies were sampled from paired "initial treatment" and "treatment after recurrence" isolates of seven patients, and 46 M. intracellulare single colonies were sampled from paired "initial treatment" and "treatment after recurrence" isolates of six patients. Mycobacterial genotyping of paired isolates was performed using rep-PCR, which was standardized according to the DiversiLab Mycobacterium kit protocol. Sample IDs represent the patient number (M. avium is designated by A# and M. intracellulare is designated by I#), initial diagnosed strain (-D), recurrent strain (-R), or second recurrent strain (-R2), and single colony morphotype (-s or -r) and single colony number (1~3). The gray vertical line is the 97% similarity line. Each color bar represents a single pattern (same genotype). Boxes with red outlines represent two patients with relapses. Definition of abbreviations: rep-PCR = repetitive extragenic palindromic sequence-based

PCR.



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50 60 70 80 % Similarity