

RES-072

Epidemiological Trends in Extrapulmonary Nontuberculous Mycobacterial Infections at a Tertiary Care Institution in Japan: A 10-Year Retrospective Analysis

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1. Background

The global incidence of nontuberculous mycobacterial (NTM) infections is demonstrating an increasing trend. Among these pathogens, respiratory infections caused by *Mycobacterium avium-intracellulare* complex (MAC) and *Mycobacterium (M.) kansasii* represent the predominant clinical entities in Japan. In the context of non-respiratory NTM manifestations, we present a case series documenting extrapulmonary NTM infections identified at a tertiary hospital in Japan.

2. Method

A retrospective analysis was conducted over a 10-year period, January 1, 2014, through December 31, 2023. Extrapulmonary specimens, excluding sputum and gastric aspirates, underwent bacteriological evaluation. A total of 33 cases harboring nontuberculous mycobacterial species, excluding *M. tuberculosis* and MAC, were identified and analyzed.

3. Results

No	age	sex	background	immuno-suppressive	site/organ	mycobacteria	grower	treatment	prognosis	ID consu lt
1	51	F	SLE	+	skin	<i>M.chelonae</i>	RGM	MINO+CAM	good	
2	75	M	ESKDonCAPD		CAPD	<i>M.fortuitum</i>	RGM	CPFX+CAM	good	
3	34	F	ESKDonCAPD		CAPD	<i>M.chelonae</i>	RGM	N/A	good	
4	77	M	lung tumor		lung	<i>M.abscessus</i>	RGM	Surgery	good	
5	75	M	empyema		lung	<i>M.gordonae</i>	IGM	Surgery	good	
6	18	F	TEN	+	skin	<i>M.gordonae</i>	IGM	N/A	good	
7	68	M	ESKDonCAPD		CAPD	<i>M.fortuitum</i>	RGM	device removal	good	
8	43	F	PAN	+	skin	<i>M.abscessus</i>	RGM	N/A	good	
9	53	F	SLE	+	skin	<i>M.chelonae</i>	RGM	N/A	good	
10	73	F	iritis	+ steroid eyedrop	eye discharge	<i>M.chelonae</i>	RGM	CPFX+RFP+MINO	good	
11	74	F	Rt. Wrist		joint	<i>M.szulgai</i>	SGM	N/A	good	
12	50	F	Dermatomyositis (MDA5Ab)	+	skin	<i>M.chelonae</i>	RGM	CAM+LVFX+RFP →CAM+LVFX	good	
13	60	M	ESKDonCAPD		CAPD	<i>M.fortuitum</i>	RGM	device removal	good	
14	90	F	skin ulcer		skin	<i>M.gordonae</i>	IGM	N/A	good	
15	52	M	skin ulcer		skin	<i>M.mucogenicum</i> /phocaicum	RGM	N/A	N/A	
16	60	M	ESKDonCAPD		CAPD	<i>M.chelonae</i>	RGM	device removal +CAM/MFLX	good	
17	49	M	strangulated ileus		ascites	<i>M.wolinskyi</i>	RGM	Surgery	good	
18	52	M	ESKDonCAPD		CAPD	<i>M.chelonae</i>	RGM	CAM+LVFX	good	+
19	81	M	ESKDonCAPD		CAPD	<i>M.mageritense</i>	RGM	MEPM+MFLX	good	+
20	69	M	PAD		skin	<i>M.chelonae</i>	RGM	CAM+STFX	good	+
21	59	F	Dmfoot		skin ulcer	<i>M.paragordoniae</i>	IGM		good	
22	48	F	ESKDonCAPD		CAPD	<i>M.fortuitum</i>	RGM	MFLX+MINO	good	
23	53	M	ESKDonCAPD		CAPD	<i>M.chelonae</i>	RGM	CAM+STFX	good	+
24	52	F	ESKDonCAPD		CAPD	<i>M.abscessus</i>	RGM	AMK+STFX+LZD	good	+
25	78	F	skin ulcers		skin	<i>M.chelonae</i>	RGM	AMK+AZM+ST	bad	+
26	82	M	ESKDonCAPD		CAPD	<i>M.abscessus</i>	RGM	CAM+MFLX+MEPM	bad	+
27	41	M	skin ulcers		skin	<i>M.mucogenicum</i> /phocaicum	RGM	N/A	good	
28	32	F	iPAH		CLABSI	<i>M.fortuitum</i>	RGM	AMK+MEPM+LVFX	good	+
29	80	M	skin		skin	<i>M.marinum</i>	IGM	MINO+CAM	good	
30	73	M	skin		skin	<i>M.fortuitum</i>	RGM	LVFX+DOXY	good	+
31	61	M	ESKDonCAPD		CAPD	<i>M.gordonae</i>	IGM	device removal	good	
32	41	M	Behcet	+ TNFα	ant. Chamber fluid	<i>M.abscessus</i>	RGM	AMK+IPM+CFZ	good	+
33	57	F	skin abscess		skin	<i>M.mageritense</i>	RGM	LVFX+ST	good	+

【Abbreviation】
SLE: Sytemic Lupus Erythematosus
RGM: Rapidly Growing Mycobacteria
CAPD: continuous ambulatory peritoneal dialysis
IGM: Intermediately Growing Mycobacteria
TEN: Toxic Epidermal Necrolysis
PAN: PeriArteritis Nodosa
PAD: Peripheral Arterial Disease

【Abbreviation (antibiotics) 】
MINO: Minocycline
CAM: Clarithromycin
CPFX: Ciprofloxacin
RFP: Rifampicin
LVFX: Levofloxacin
MFLX: Moxifloxacin
MEPM: Meropenem
STFX: Sitafloxacin
AMK: Amikacin
LZD: Linezolid
AZM: Azithromycin
DOXY: Doxycycline

Table. Clinical feature of mycobacteria at a Japanese tertiary hospital

4. Conclusion

Despite considerable regional variation, cutaneous and soft tissue infections, followed by CAPD catheter exit-site infections, constituted the predominant forms of extrapulmonary nontuberculous mycobacterial infections observed at a tertiary care university hospital in Japan. Clinical outcomes may have been enhanced through ID specialist consultation.

Conflict of Interest

Conflict of interests is none.

References

IJID Regions.2024;10:100378
JID 1988;158:52-9
JCM.2006;44:3463-4
DMID.2008;62:433-6

Int Urol Nephrol.2013;45:289
DMID. 2011;71:421-7
EID. 2008;14:1818-19
J Clin Lab Anal.2012;26:325-7
Infect Dis Rep.2013;5:e12
BMC Infect Dis.2013;13:479
Infect Control Hosp Epidemiol. 2014;35:1169

J Orthop Sci. 2015;20:229-31
J Hosp Infect. 2016;93:235-9
Case Rep Dermatol. 2016;8:151-6
Inter Med. 2017;56:3097-101
JBJS Case Connect. 2019:e0315
Infect Dis Ther.2021;10:1073-80

J Wound Ostomy Continence Nurs. 2021;48:573-7
JIC. 2021;27:766-9
BMC Infect Dis. 2022;22:520
AmJInfectControl.2023;51:454-60
CID.2006;43:823-30