

Mycobacterium lentiflavum infection presenting with cardiac tamponade: a case report

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Up to 40% of cases of NTM pericarditis show pericardial effusion. However, cardiac tamponade is uncommon. Herein, we present a case of NTM pneumonitis and pericarditis caused by *M.lentiflavum*, leading to cardiac tamponade following a COVID-19 infection. A 47-year-old man was admitted to outpatient clinic with dyspnea three weeks ago. He had a history of hypertension and COVID-19 infection one month before. Chest X-ray showed marked cardiomegaly(Figure 1A). TTE showed a huge amount of pericardial effusion with RV collapse at the early diastole phase(Figure 2). He underwent pericardiocentesis, and pericardial fluid analysis showed exudates and high ADA levels. Pericardial AFB stain and TB PCR were negative; however, serum IGRA was positive. Chest CT showed multiple small solid nodules, and ill-defined GGO nodules in BUL(Figure 3). An diagnosis of cardiac tamponade due to TB pericarditis was made, and an oral steroid was administered. He was started on empirical anti-TB medications. One month after discharge, chest X-rays showed that the cardiomegaly had improved(Figure 1B). Two months after discharge, pericardial AFB culture test results were negative, but NTM was identified in the sputum AFB culture. It was determined that NTM could not be detected in the pericardial AFB culture due to its slow growth. The initial empirical anti-TB medication were changed to clarithromycin, rifampin, and ethambutol that targeted most common NTM species, *M.avium*. Two weeks later, test using 16s RNA finally confirmed the NTM species as *M.lentiflavum*. Ciprofloxacin was added. Based on the final susceptibility results, it was suitable for current medication(Table 1). He is being followed up at an outpatient clinic without any adverse events. Since TB pericarditis accompanied by cardiac tamponade is usually more common than pericarditis caused by NTM, empirical anti-TB medication are first administered. Although rare, pericarditis caused by NTM may occur, it is important for clinicians to remain cognizant of the possibility of pericarditis and pneumonitis caused by a novel strain, such as *M.lentiflavum*, with reactivation following a COVID-19 infection, as observed in our patient.

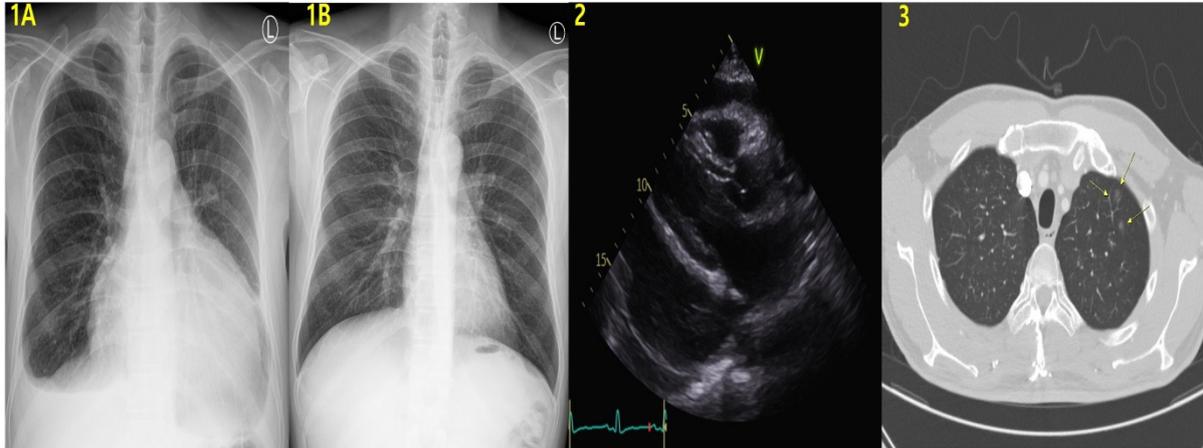


Table 1

약제명	MIC	판정
Clarithromycin	≤1	S
Amikacin	<-2	S
Linezolid	2	S
Streptomycin	≤1	S
Ciprofloxacin	≤0.25	S
Doxycycline	4	I
Clofazimine	≤0.25	
Trimethoprim/Sulfamethoxazole	≤0.5/9.5	S
Minocycline	4	I
Rifampicin	1	S
Rifabutin	≤0.25	S
Ethambutol	16	
Moxifloxacin	≤0.125	S