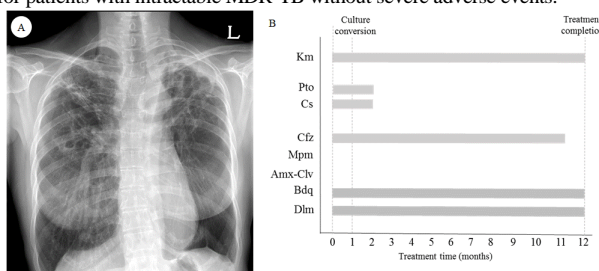


## Concurrent, prolonged use of bedaquiline and delamanid for multidrug-resistant tuberculosis

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Bedaquiline and delamanid have been introduced for the treatment of multidrug-resistant tuberculosis (MDR-TB). However, a treatment duration of only 24 weeks was approved; furthermore, the combined use of these two drugs is not routinely recommended because of exaggerated QT prolongation. Here, we present a case of prolonged treatment (48 weeks) with a combination of bedaquiline and delamanid for pulmonary MDR-TB. A 45-year-old woman was admitted to our hospital for treatment of pulmonary MDR-TB. She was diagnosed with MDR-TB 20 years ago (Figure 1A) and had been previously treated unsuccessfully with conventional drugs at another hospital. The treatment was stopped in April 2009 due to a shortage of effective drugs. In 2017, the Korea Centers for Disease Control and Prevention approved the concurrent use of both bedaquiline and delamanid; in addition, the Institutional Review Board of Asan Medical Center approved a prolonged duration of treatment. Treatment was initiated in August 2017 (Figure 1B). The dose for each drug was as follows: delamanid, 100 mg twice a day; bedaquiline, 400 mg once a day (then after 2 weeks, 200 mg three times a week); clofazimine, 100 mg once a day; prothionamide, 375 mg twice a day; cycloserine, 500 mg and 250 mg twice a day; kanamycin, 15 mg/kg once a day; meropenem, 1000 mg three times a day; and amoxicillin/clavulanate, 625 mg two times a day. During treatment, laboratory tests and ECG were regularly monitored. Sputum AFB smear and culture were repeated monthly. On the 38th day after treatment initiation, she was discharged to home, maintaining the regimen except for meropenem/clavulanate. At the outpatient clinic, the patient was followed up monthly. Three drugs were discontinued: cycloserine due to hand tremors, prothionamide due to nausea and clofazimine due to skin hyperpigmentation. The sputum culture converted to negativity at 30 days after treatment initiation. The treatment was successfully completed in July 2018. Therefore, prolonged and concurrent treatment with bedaquiline and delamanid under regular surveillance is a possible treatment option for patients with intractable MDR-TB without severe adverse events.



## A rare case of numerous thoracolithiasis with chest discomfort

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**Introduction:** Thoracolithiasis is a very rare benign condition which one or more mobile free bodies with or without calcification exist in the pleural cavity without any previous trauma, intervention or pleurisy. It is also known as pleural stone(pleurolith), intrathoracic calculus or intrapleural loose body. Most patients are asymptomatic and it is incidentally found on chest image or during thoracic surgery. Up to our knowledge there is no report of numerous thoracolithiasis presented with symptom in Korea, and here we report a very rare case. **Case report:** A 36-year-old female visited our hospital with chest discomfort. Physical examination had no specific findings and blood laboratory tests were unremarkable. Chest CT and MRI showed chains of non-enhancing nodules in the left pleura with fat containing lesion. PET-CT showed pleural based lesions without significant FDG uptake in left lower lobe of lung. In the serial follow up CT images, the nodule changed position in the left pleural cavity. Due to the patient's symptom, video associated explorative thoracotomy (VATS) was performed. During operation, twenty-five various sized pearl like lesion was observed in pleura and histopathological examination presented extensive necrotic fat tissue at center surrounded by fibrosis. The various size of pleural stones, 20mm being largest, were removed and the patient was symptom-free after the surgical removal. **Conclusion:** Due to its rare entity, thoracolithiasis is indistinguishable from a pulmonary nodule and may be under-recognized, though the mobility of the nodule is the key finding for the diagnosis.

