Antibiotic	Microdilution MIC (μg/mL)	S	I	R
TMP/SMX	4/76			√
Linezolid	16		√	
Ciprofloxacin	>4			√
Imipenem	8		√	
Moxifloxacin	>8			√
Cefoxitin	32		√	
Amikacin	8	√		
Doxycycline	>16			√
Minocycline	>8			√
Tigecycline	0.06			-
Tobramycin	-			-
Clarithromycin	>16			√
Ertapenem	-			-
Meropenem	-			-
Clofazimine	0.25			

Antibiotic used	Dose	duration
Azithromycin	500 mg daily	D1-D16
Amikacin	15 mg/kg daily to start and adjusted afterwards for trough <2 and peak of 50.	D1-D42
Imipenem	500 mg Q6hr	D1-D42
Linezolid	600 mg Q12hr	D9-D17
Tigecycline	100 mg once and 50 mg Q12hr	D17-D42

Disclosures. **All authors:** No reported disclosures.

1358. A Novel Rapidly Growing Mycobacteria (RGM) Species Causing Soft Tissue and Orthopedic Hardware Infection After Trauma

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Background. The widespread use of molecular techniques has resulted in increasing numbers of newly characterized rapidly growing mycobacteria (RGM). Many RGM cause soft tissue and orthopedic hardware infection, particularly after trauma. RGM species identification remains challenging with few genetic differences between species.

Methods. We describe a case involving RGM. We report results of matrix-assisted laser desorption/ionization time of flight (MALDI-TOF) mass spectrometry (Bruker Biotyper), sequencing of *rpoB*, *erm(39)*, and 16S rRNA genes, and antibiotic susceptibility testing (AST). We review previous reports describing similar RGM infections.

Results. A 58-year-old male sustained multiple fractures and right thigh compartment syndrome after a motorcycle accident. He underwent fasciotomy and multi-stage surgical fixations. 3 months later, he had wound dehiscence, purulence and multiple fluid collections of his right leg and knee requiring surgical drainage and removal of orthopedic hardware. After 4 days, acid-fast bacilli grew on routine bacterial culture media. MALDI-TOF identified the isolate as *Mycobacterium mageritense*. In contrast, sequencing of 16S rRNA (100% identity) and *erm(39)* (> 99% identity) identified the isolate as *Mycobacterium houstonense; erm(39)* only had 80% similarity with *Mycobacterium fortuitum*. Sequencing of *rpoB* showed a 19 bp difference with the *M. houstonense* type strain, and showed similarity to *M. fortuitum* (97.64%) than *M. houstonense* (97.45%). AST demonstrated resistance to clarithromycin only. After initial treatment with imipenem, ciprofloxacin, and doxycycline, definite therapy with ciprofloxacin and doxycycline was successful. In the literature, we found one case each of *M. mageritense* and *M. houstonense* infection after trauma.

Conclusion. This case highlights the importance of RGM other than *M. fortuitum* as a cause of soft tissue and orthopedic hardware infections, and illustrates the difficulty of identifying them to the species level. Sequencing of *erm(39)* and 16S rRNA gene identified the isolate as *M. houstonense*, but the larger difference (>2.5%) in *rpoB* sequence suggests a novel species. Further characterization is underway. Efforts to determine RGM species and antibiotic susceptibility give important insight into diagnosis and management.

Disclosures. **All authors:** No reported disclosures.

1359. Clinical Experience and Challenges Utilizing Clofazimine in the Treatment of Nontuberculous Mycobacterial Pulmonary Infections

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Background. Nontuberculous mycobacterial (NTM) pulmonary infections are increasingly common and associated with significant morbidity and mortality. Treatment is challenging given high rates of antimicrobial resistance, the need for prolonged therapy with multiple agents, and poor medication tolerability. Clofazimine (CFZ), an antimicrobial available under an investigational new drug (IND) program, has excellent in vitro activity but limited clinical data. We present an 18-month experience of clofazimine as part of a multidrug regimen as salvage therapy for NTM pulmonary infections at the James A. Haley Veterans' Affairs Hospital in Tampa, FL.

Methods. We conducted a single-center, retrospective review of the medical records of 11 patients with NTM pulmonary infections who were approved for treatment with CFZ-containing regimens between September 2017 and February 2019. Basic demographics, clinical characteristics, as well as symptomatic, radiologic, and microbiologic responses to therapy were evaluated.

Results. Approval for the IND program took approximately 15 months. We then treated 8 patients with pulmonary NTM infection with CFZ-containing regimens. Of these, 88% had cavitary disease, 63% were active smokers, and all had underlying pulmonary disease. The most common etiologic organisms were *Mycobacterium avium* complex and *Mycobacterium abscessus*. All patients were required to follow up every 3 months while on therapy. For patients who had at least 3 months of follow up, 100% reported symptomatic improvement. 50% achieved negative cultures with an average time to clearance of 25 weeks. All had stable or improved imaging. CFZ was well tolerated with no significant adverse effects.

Conclusion. Once available, CFZ-containing regimens were moderately effective in treating NTM pulmonary infections with minimal adverse effects. Close patient follow up was necessary to assess response to treatment.

Disclosures. **All authors:** No reported disclosures.

1360. Disseminated *Mycobacterium abscessus* Infections in Patients with Neutralizing Anti-interferon-gamma Autoantibodies Treated with Rifabutin-based Combination Regimens

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Background. This prospective study aimed to describe the treatment and safety outcomes of rifabutin-based combinations which has been shown to be synergistic *in vitro*, for patients with refractory *M. abscessus* infections and neutralizing anti-IFNγ antibodies.

Methods. Patients failing at least two standard macrolide-based regimens were recruited from hospitals across Taiwan since August 2017. They received rifabutin (RFB > 300 mg/day) initially with azithromycin (AZR 500 mg/day) and at least one parenteral agent and were monitored thereafter clinically on a monthly basis and by 3–6 monthly PET-CT imaging.

Results. Of 12 referred patients, only four had complete evaluations. The median age was 41 years and follow-up duration was 543 (range 307–668) days. All patients had lung and lymph node disease, two also had liver, bone and joint involvements and all were HLA-DR 16:02, HLA-DQ 05:02 positive. Prior to starting RFB–AZR, they had received at least four successive antimycobacterial regimens, but showed progression of existing lesions (2) or new lesions (2). Following RFB–AZR, all four patients experienced adverse reactions, including reactive dermatoses (2), fevers (2), leukopenia (2), thrombocytopenia (1), hearing loss (1), acute kidney injury (1), which necessitated withdrawal of rifabutin (4), short-term steroid use (2), and replacement of tenofovir with entecavir for chronic hepatitis B (1). All patients recovered fully from these adverse effects. Rifabutin was successfully restarted on first attempt (3) and on third attempt (1). The longest symptom-free interval on RFB–AZR was 331 days and the lowest maintenance dose was RFB 150–AZR 250 thrice weekly. Follow-up PET-CT confirmed good resolution of previous hot spots (mean SUVmax −4.5) except for the patient who did not tolerate RFB 300 due to fever and nausea on the first re-challenge, whose PET-CT detected a slight increase in mean SUVmax +0.6 and was hospitalized for dry cough on daily AZR–ciprofloxacin. The latter eventually tolerated a lower daily dose RFB 150–AZR 250 and became asymptomatic.

Conclusion. Rifabutin is an oral agent that can be effectively combined with azithromycin in long-term maintenance regimens against *M. abscessus* in immunodeficient adults. Adverse effects are frequent early on; however, rechallenge appears to be safe and outcomes favorable.