

Table 3. Treatment and outcomes	
Treatment regimens*	
Received a sulfonamide for some portion of treatment, n (%)	24 (92)
Received an oxazolidinone for some portion of treatment, n (%)	19 (73)
Maintenance immunosuppression reduced, n (%)*	22 (85)
Tacrolimus reduced/held, n (%)	5 (23)
Mycophenolate mofetil reduced/held, n (%)	10 (45)
Prednisone reduced/held, n (%)	2 (9)
More than one immunosuppressive agent reduced/held, n (%)	5 (23)
Outcome, n (%)**	
Resolution of infection without relapse	19 (73)
Relapsed infection	1 (4)
Treatment ongoing	2 (8)
Expired	4 (15)
Expired at 30 days from <i>Nocardia</i> diagnosis	1 (25)
Expired at 180 days from <i>Nocardia</i> diagnosis	3 (75)
*treatment data not available for 1 subject	
**outcome data not available for 1 subject	

Conclusion. The epidemiology and risk factors for nocardiosis in this SOT cohort are consistent with established literature. Less than a third of cases occurred in subjects who had received lymphocyte-depleting induction immunosuppression; however, most subjects were lymphocytopenic at diagnosis. While nearly all subjects received a sulfonamide as part of their treatment, the majority also received an agent from the newer drug class of oxazolidinones. Overall outcomes were positive, but treatment varied, thus limiting the ability to determine if a particular combination regimen is beneficial. Multicenter randomized studies are needed to better address knowledge gaps particularly pertaining to treatment.

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1082. Characterization of Ceftriaxone-Resistant *Viridans Streptococci* Bacteremia Among Patients at a Comprehensive Cancer Center

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Session: P-49. Infections in Immunocompromised Individuals

Background. *Viridans streptococci* (VS) are opportunistic oral commensals and a common cause of bacteremia, particularly in neutropenic patients. We sought to investigate the prevalence of ceftriaxone (CTX) resistance in VS blood isolates at our medical center among patients with cancer or treated with hematopoietic cell transplant (HCT), and to describe treatment and clinical course.

Methods. In this retrospective single center cohort study, we identified CTX-resistant (CTX-R) VS isolates among patients between January 2005 – June 2020. VS in blood cultures were identified using a combination of biochemicals and mass spectrometry. Susceptibility testing was performed by Kirby Bauer and E-Test. Demographic data, clinical outcomes, and antimicrobial use, including prophylactic, empiric treatment and definitive therapy choices were assessed through electronic medical record review.

Results. Of unique VS with sensitivities (n=693), 27 (3.9%) patients had confirmed CTX-R VS bacteremia over the 15-year period; the majority were *S. mitis* (23/27 [85%]). 17 (63%) were cancer center patients, of whom 15/17 (88%) had a known hematologic malignancy, 11 (65%) had undergone HCT, and 15 (88%) were neutropenic (absolute neutrophil count ≤500 cells/microliter). Of CTX-R strains, 15/17 (88%) had concomitant resistance to penicillin, erythromycin (12 [71%]), and levofloxacin (12 [71%]); all were sensitive to vancomycin. Most were on levofloxacin prophylaxis (11/17 [65%]) at the time of diagnosis. Initial empiric antibiotic choices primarily included cefepime, ceftazidime, or meropenem, with 16/17 (94%) receiving concomitant empiric vancomycin; 14/17 (82%) were de-escalated to vancomycin once sensitivities were obtained. 2/17 (12%) patients died within 30 days of CTX-R VS bacteremia. Despite increasing susceptibility testing among VS isolates, there did not appear to be an increase in the percentage of CTX-R over time.

Conclusion. VS is a common pathogen in neutropenic cancer patients treated with chemo and/or BMT, and multi-drug resistant CTX-R strains are of concern. In the modern era of ambulatory cancer care, prescribers must be cautious using ceftriaxone monotherapy in the absence of susceptibility information, particularly among patients with hematologic malignancies.

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1083. Clinical Efficacy of Tedizolid for the Treatment of *Mycobacterium abscessus* complex Infections in Solid Organ Transplant Recipients

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Session: P-49. Infections in Immunocompromised Individuals

Background. *Mycobacterium abscessus* complex is a rapidly growing mycobacteria notoriously refractory to therapy due to inherent antimicrobial resistance mechanisms. Tedizolid is an oxazolidinone with *in vitro* activity against many nontuberculous mycobacteria species, including *M. abscessus* complex. This study describes the clinical outcomes of solid organ transplant (SOT) recipients with *M. abscessus* complex infection treated with tedizolid at a single medical center.

Methods. This retrospective cohort study included adult SOT recipients who met the ATS/IDSA criteria for nontuberculous mycobacterial infection and were treated with a multi-drug regimen that included tedizolid for at least four weeks between January 1, 2010 to August 31, 2019. Symptomatic improvement was defined as either decreased cough or sputum production for pulmonary infection and decrease in size of the primary lesion for skin or surgical site infection. The criteria for a microbiologic response was more than one negative culture with the causative species and sustained until the end of treatment. Clinical cure was defined as improvement of symptoms without proven negative cultures during and sustained until the end of treatment. A patient was considered cured if both symptomatic (if applicable) and microbiologic criteria were fulfilled. The clinical outcomes were compared from the initiation of tedizolid-containing regimen to the end of any *M. abscessus* complex treatment.

Results. Twelve patients were included. *Mycobacterium abscessus abscessus* (7/12, 58%) was the most common subspecies. The distribution of infections were as follows: five (42%) disseminated infections, five (42%) pulmonary infections, five (42%) surgical site infections, and four (33%) skin and soft tissue infections. Six patients were cured or clinically cured for all sites of infection (50%), three patients died (25%), and one patient had two recurrences (Table 1).

Table 1. Patient demographics and outcomes of *M. abscessus* complex infection.

Pt	Age/ Sex	Transplant type (date most transplant?)	Cs mechanism	CTD in the initial regimen (MBC)	Competing drugs ¹ (MBC)	Mycobacterium species	Status of infection	Species isolated	Surgical site/soft tissue/ source unclear	Symptomatic	Radiographic/ Biopsy/Response	Microbiology stays to negative (culture)	Clinical outcome
1	38 F	Bilateral lung (2016)	DM, HTN	Yes (1)	Isipuzone (16), Sperylactin (0-2)	R (nontuberc)	Surgical site	<i>M. abscessus</i> species	No	Yes	NA	NA	Clinical cure
2	51 F	Bilateral lung (2016)	DM, HTN	Yes (2)	Isipuzone (0), Sperylactin (0-1)	R (nontuberc)	Bacteremia	<i>M. abscessus</i> abscessus	No	NA	NA	Yes (1 of 7)	Cure
							Pulmonary colonization	<i>M. abscessus</i> abscessus	No	No	NA	Yes (11 of 7)	NA
							SSTI	<i>M. abscessus</i> abscessus	No	Yes	NA	NA	Clinical cure
3	64 F	Heart (18 d)	HTN, ESRD	Yes (4)	Azithromycin (16), empiric (0)	S	CLABSI	<i>M. abscessus</i> species	Yes	NA	NA	Yes (13 of 7)	Cure
							Small osteomyelitis	<i>M. abscessus</i> abscessus	Yes	Yes	Improved	Yes (11 of 7)	Cure
4	43 M	Bilateral lung (17 d)	DM, HTN, Stroke	Yes (3)	Isipuzone (0), Sperylactin (0-2)	S	Bacteremia		No	NA	NA	Yes (12 of 7)	Death
							SSTI	<i>M. abscessus</i> abscessus	Yes	Yes	NA	NA	
							Pulmonary colonization		No	No	NA	Yes (17 of 7)	
5	28 M	Bilateral lung (0 d)	DM, CF	No (0)	Azithromycin (16), Isipuzone (0-2), Cefepime (1-16), empiric (0), Sperylactin (0-1)	R (nontuberc)	Pulmonary site (transplant)	<i>M. abscessus</i> abscessus	Yes	Yes	Improved	Yes (10 of 7)	Cure
							Surgical site		Yes	Yes	NA	NA	Clinical cure
6	38 M	No transplant, bilateral lung (15 d)	DM, HTN	Yes (2)	Isipuzone (0), Sperylactin (0-2)	R	Pulmonary site (transplant)	<i>M. abscessus</i> abscessus	Yes ²	No	Improved ³	NA ⁴	Death
							Surgical site		Yes	No	NA	NA	
7	38 F	Bilateral lung (17 d)	DM, CF	No (0)	Bedaquiline (0-1), empiric (16), Sperylactin (0-2)	R (nontuberc)	Pulmonary site (transplant)	<i>M. abscessus</i> abscessus	Yes	No	Improved ³	NA	Failure
							Surgical site		Yes	Yes	NA	NA	
							Pulmonary colonization		Yes	Yes	NA	NA	
8	77 M	Single lung (2016)	HTN, COPD	Yes (0)	Azithromycin (0-1), empiric (16)	S	Bacteremia	<i>M. abscessus</i> abscessus	No	NA	NA	Yes (1 of 7)	Cure
							SSTI		No	Yes	No	NA	NA
9	66 M	Bilateral lung (2016)	DM, HTN, Liver disease	Yes (1-2)	Isipuzone (0), Sperylactin (0-2)	R (nontuberc)	Pulmonary colonization	<i>M. abscessus</i> abscessus	No	NA ⁵	NA	Yes (17 of 7)	NA
							Surgical site		Yes	Yes	NA	NA	Clinical cure
10	34 M	Single lung (2016)	HTN, chronic asthma	No (0)	Azithromycin (0-1), bedaquiline (0-1)	S	Pulmonary	<i>M. abscessus</i> abscessus	No	No	Worsened	Yes (10 of 7)	Death
11	31 M	Single lung (0 d)	HTN, HTN, COPD, chronic asthma	Yes (16)	Isipuzone (0), Sperylactin (0-2)	S	Pulmonary (empiric)	<i>M. abscessus</i> abscessus	Yes	Yes	Improved	NA	Clinical cure
12	78 M	Single lung (2016)	DM, HTN	Yes (2)	Isipuzone (16), Sperylactin (0-2)	R (nontuberc)	Bacteremia	<i>M. abscessus</i> abscessus	No	NA	NA	Yes (08 of 7)	Recurrence
							SSTI		No	Yes	NA	NA	

¹Blood cultures
²Blood culture with large (BA) culture
³Direct repeat culture
⁴Not sampled
⁵Secondary to transplant
⁶Positive sputum culture pre-transplant and negative BA culture post-transplant
⁷Source of organism unclear
⁸At the initiation of treatment
⁹Other source of infection/colonization appears prior to transplant
Abbreviations: CLABSI, central line-associated bloodstream infection; CF, cystic fibrosis; COPD, chronic obstructive pulmonary disease; DM, diabetes; ESRD, end-stage renal disease; HTN, hypertension; L, liver disease; MBC, minimum inhibitory concentration in mg/mL; NA, not applicable; ST, not tested; P, patient; R, resistant; S, susceptible; SSTI, skin and soft tissue infection.

Conclusion. Most patients had multiple sites of infection, and treatment required combination antimicrobial therapy and appropriate surgical management. In this small cohort, tedizolid-containing regimens demonstrated a potential benefit in symptomatic and microbiologic improvement in SOT recipients with *M. abscessus* complex infection.

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