Dalbavancin for the Treatment of Vertebral Osteomyelitis

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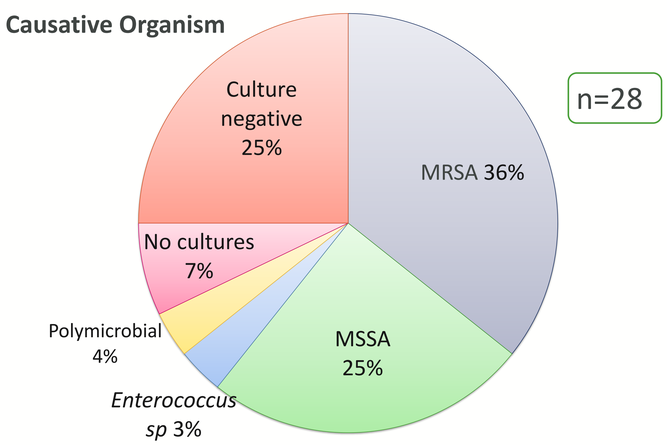
Background

- Clinical outcomes data for the treatment of osteomyelitis (OM) is expanding, including a single randomized control trial of non-vertebral osteomyelitis.
- However, data addressing the treatment of vertebral osteomyelitis with dalbavancin is limited.

Methods

- Retrospective chart review and descriptive analysis
- Patients ≥ 18 years old
- Cases included from April 2015 – December 2021
- Had clinical diagnosis of vertebral osteomyelitis and received at least one dose of dalbavancin in any setting
- Recurrence, relapse, or mortality was documented if it could be determined to have occurred at 30 or 90 days by retrospective review of the EMR which is not comprehensive of all health care locations in the region.

Results



Results

Dalbavancin Regimen (total n=28)	1500 mg x 1 n=11		1500 mg x 2 n=17	
Age (years); mean(SD)	45.4 (13.5)		42.2 (9.9)	
	n (%)		n (%)	
Gender (Female)	4 (36.4%)		2 (11.8%)	
History of Substance Use %	11 (100%)		17 (100%)	
Endorsed injection drug use %	11 (100%)		7 (41.1%)	
Treatment Setting *(for patients with 2 doses, may have received doses in more than 1 setting)*				
Inpatient	5		8	
Infusion Center	0		6	
Home Infusion vendor	6		7	
Correctional Facility	0		2	
Emergency Department	0		1	
Infection Characteristics	n	%	n	%
Bacteremic patients (total)	6	54.5	2	11.8
Median bacteremia duration (days); range	2.5	1-18	1.5	1-2
Epidural space involvement (phlegmon or abscess)	9	81.8	9	52.9
Surgical source control procedure	6	54.5	4	23.5
Retained vertebral hardware	1	9.1	3	17.6
Duration of antibiotics prior to dalbavancin (median; days)	32		11	

Treatment Outcomes	1500 mg x 1		1500 mg x 2	
	n	%	n	%
Chronic oral antibiotic suppression after dalbavancin	0	-	3	16.7
Confirmed 30-day readmission for any reason	1	9.1	0	-
Confirmed 90-day readmission for any reason	0	-	2	11.8
Readmission due to recurrence or adverse effects	1	3.6	1	5.9
Confirmed recurrence or relapse of infection 30 days post last dalbavancin dose (evidence of recurrence or relapse noted in chart)	1	9.1	0	-
Confirmed recurrence or relapse of infection 90 days post last dalbavancin dose	1	3.6	0	-
Confirmed 30-day mortality	0	-	0	-
Confirmed 90-day mortality	0	-	0	-
Adverse reaction	2	18.2	5	29.4
Gastrointestinal symptoms	1		1	
Infusion reaction	1		4	

Results

Documented Reason for Dalbavancin Selection	n	%
History of intravenous drug use	19	67.9
Substance use, not IV	2	7.1
Lack of safe home environment in which to receive daily IV antibiotics	7	25.0
Prior non-adherence to outpatient antibiotics	5	17.9
Patient refused PICC or daily outpatient IV antibiotics	3	10.7
Prior history of contaminated or manipulated PICC	2	7.1
Adverse reaction to initial outpatient antibiotic	1	3.6
Clinical contraindications to alternative antibiotic options	1	3.6
Lack of outpatient options due to funding or insurance limitations	1	3.6
Ease of use	1	3.6

Dalbavancin was selected for one or more of the above reasons, all reasons given in medical record were noted

Conclusions

There are signals that dalbavancin may be a safe and tolerable option for the treatment of vertebral OM, although comparative and randomized data, especially for vertebral OM due to *Staphylococcus aureus,* is needed before dalbavancin can be recommended as standard of care.

References

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