and readmission rates. Analyses suggest a potential difference in the pursuit of source control and combination therapy among PWID, however more studies may be needed to achieve significance.

Disclosures. **Michael J. Rybak, PharmD, MPH, PhD**, **Paratek Pharmaceuticals** (Research Grant or Support)

687. Use of Dalbavancin in Gram-positive Infective Endocarditis: Review of Current Literature

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Background. Dalbavancin is a long acting, semisynthetic derivative of teicoplanin that is currently approved for treatment of acute bacterial skin and skin structure infections. Its efficacy and role of in the treatment of invasive infections, in particular infective endocarditis, is not well known.

Methods. We reviewed the English-language literature for the use of Dalbavancin in the treatment of endocarditis due to Gram-positive organisms, using Pubmed.

Results. 15 publications were reviewed. All the publications were retrospective in nature, with relatively small numbers of patients, including a few case reports.

A total of 159 patients received Dalbavancin for endocarditis. The mean age was 47 years. The main reasons for using Dalbavancin were non-feasibility of a standard outpatient regimen (mainly due to drug use) or the need for a simpler regimen. 75 patients had infection of a native valve, 44 of a prosthetic valve and 19 of a cardiac device. The type of infection for the rest of the patients was not specified. The tricuspid valve was the most frequently reported. The etiologic organisms causing endocarditis were Staphylococcus species, followed by Streptococcus species and Enterococcus species, with Staphylococcus aureus being the most common. All, but one, patients received Dalbavancin as sequential therapy, after receiving other intravenous antibiotics initially. The duration of antibiotics received prior to initiation of Dalbavancin was variable, with the median being 3 weeks. The median duration of Dalbavancin use was 2.7 weeks. The dosage regimens varied, with the more common ones using a loading dose of either 1500 mg or 1000 mg, followed by one or more weekly doses of 500 mg. The overall clinical efficacy was around 89%. Adverse events were mild, including nausea, vomiting, rash, headache and reversible acute kidney injury. None of the patients had to discontinue the drug because of adverse events. Two publications evaluated the cost effectiveness of Dalbavancin and found it to save about $9000 per patient, the saving being mainly due to reduced length of hospital stay.

Conclusion. Dalbavancin appears to be an efficacious, safe and cost-effective option for sequential treatment of endocarditis caused by Staph aureus and other Gram-positive organisms.

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

688. Incidence and Risk Factors for Prosthetic Valve Endocarditis Following TAVR: 2015-2019

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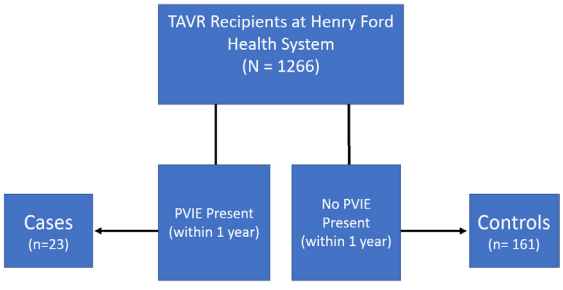
Session: P-32. Endocarditis

Background. Transcatheter aortic valve replacement (TAVR) is increasingly used for lower risk patients. Incidence of TAVR endocarditis ranges from 0.2% to 3.3%. The purpose of this study was to determine local incidence and risk factors of prosthetic valve infective endocarditis (PVIE) in a contemporary cohort.

Methods. IRB approved retrospective, nested case-control study evaluated the 1-year incidence and risk factors for PVIE among TAVR recipients from 2015 to 2019. Inclusion: ≥ 18 years, TAVR procedure at Henry Ford Health System. Exclusion: repeat TAVR. PVIE cases were matched with controls who did not experience PVIE. PVIE defined as diagnosis documentation in the electronic medical record.

Figure 1. Study Design



Results. 23/1266 patients were identified as cases corresponding to a 1-year incidence of 1.82%. The median time to PVIE was 127 days and 35% occurred within 60 days. The most frequently isolated organisms were streptococci (26%), MRSA (13%), and MSSA (13%). Baseline demographics and comorbidities for 23 PVIE cases and 161 controls are displayed in Table 1. Significant risk factors for PVIE in bivariate analysis included STS-PROM (Society of Thoracic Surgeons Predicted Risk of Mortality), median: 4.1 controls and 6.4 cases (p = 0.012). Age, BMI, and comorbidities were not significantly different. Diabetes was notably more frequent among cases (36% vs 48%, p = 0.274). Patients with PVIE had more post-op RBC transfusions (5% vs 21.7% p = 0.003), ECG changes (23% vs 43.5%, p = 0.035), heart block (15.5% vs 34.8%, p = 0.038), longer length of stay (2 days, range 1 to 4 vs 4 to 11, p = 0.004), and thirty-day readmission (10.6% vs 52.2%, p < 0.001). Results displayed in Table 2.

Table 1. Patient Characteristics and Risk Factor Analysis

n = 184	No Infection (n = 161)	PVIE (n = 23)	P Value
Demographics			
Female	73 (45%)	14 (61%)	0.163
Age, Overall	81 (75 to 87)	79 (74 to 83)	0.285
BMI (kg/m²)	28.5 (6.5)	29.4 (6.6)	0.655
Diabetes	58 (36%)	11 (48%)	0.274
On Hemodialysis	3 (1.9%)	1 (4.3%)	0.417
Liver Dysfunction	6 (3.6%)	2 (8.7%)	0.263
Chronic Lung Dis.	15 (9.3%)	4 (17%)	0.266
Immunosuppressed	11 (6.8%)	2 (8.7%)	0.668
Diabetes + 1 other	29 (18%)	8 (34.8%)	0.061
STS Risk	4.10 (2.63 to 6.65)	6.40 (4.20 to 8.2)	**0.012**
STS >8	23 (14.3%)	6 (26.1%)	0.146
90 Day IV Antibiotics	20 (12.4%)	4 (17.4%)	0.510
MDRO History	5 (3.1%)	2 (8.7%)	0.213
Procedure Details			
Procedure Length	101 (75 to 87)	102 (96 to 135)	0.591
Contrast Volume	105 (86 to 134)	110 (80 to 125)	0.645
Radiation Dose	552 (354 to 878)	589 (310 to 1307)	0.683
Fluoroscopy Time	26.5 (20.8 to 36.5)	29.2 (22.9 to 38.4)	0.541

Table 2. Additional Outcomes

n = 184	No Infection (n = 161)	PVIE (n = 23)	P Value
Post-op Transfusion	8 (5%)	5 (21.7%)	p = 0.003
Post-op ECG Change	37 (23%)	10 (43.5%)	p = 0.035
Length of Stay	2 (1 to 4)	2 (4 to 11)	p = 0.004
30 Day Readmit	17 (10.6%)	12 (52.2%)	p < 0.001
Non-femoral Access	8 (5%)	0	p = 0.599
Heart Block	25 (15.5%)	8 (34.8%)	p = 0.038

Conclusion. The results from this study give insight to the local incidence, microbiology, and risk of PVIE following TAVR. Future directions include a larger evaluation of modifiable risks such as diabetes management and examining the heart block patients who received permanent pacemaker implants.

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689. *Streptococcus suis* Endocarditis: Echocardiographic Features and Clinical Outcomes

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Background. *Streptococcus suis (S. suis)* is a zoonotic pathogen that transmits to the human with direct contact of pig or raw pork ingestion. This infection has been described in Asia, especially Thailand, Vietnam, and China. *S. suis* could cause wide range of infection, including endocarditis. This study aimed to describe the clinical features, echocardiogram findings, and outcomes of *S. suis* endocarditis.

Methods. A single center, ten-year (January 2009 to December 2018), retrospective cohort was conducted among patients who were diagnosed with *S.suis* endocarditis in 1,200-bed hospital in Northern, Thailand.

Results. Forty-three patients of *S.suis* endocarditis were identified during the study period. Of those, 28 (65%) patients had positive blood culture and 15 (35%) was diagnosed by 16SRNA bacterial identification from heart valve tissue. Majority (81%) were male with median age of 35. There were 62 affected valves in 43 patients. Twenty patients (48%) had vegetation larger than 10 mm in diameter and 35 (81.4%) patients had moderately severe or severe valvular regurgitation. Valvular perforation was described in 23 patients (53%). Perivalvular complications were founded in 15 patients (35%). Systemic embolism occurred in 17 (40%) patients. Cardiac operation was undertaken in 35 (81%) patients. There were 2 in-hospital deaths (5%) and 6 patients (14%) had disabilities. Moderately severe/severe regurgitation, systemic embolism, and no cardiac operation were significantly associated with disability or death from univariate analysis. By logistic regression analysis, systemic embolism was the only risk factor for disability or death (OR = 12.6, 95% CI 1.3-123.5, p = 0.029).