Session: P-69. Sexually Transmitted Infections

Background. In the US, syphilis infections have increased 71% since 2014. Proctitis is a rare manifestation of early syphilis transmitted through anal intercourse. We suspect that its misdiagnosis results from physician under-awareness and thus we present the largest case analysis to date of syphilis proctitis.

Methods. We searched PubMed and Scopus for articles describing cases of proctitis in which *Treponema pallidum* was a likely causative pathogen based on serologies, and/or organism-specific staining of anorectal biopsy specimens. Furthermore, we conducted chart review to identify cases of syphilis proctitis diagnosed within our health center from 2011-2019. Pertinent data were extracted from the articles and medical records and analyzed to provide a summative account.

Results. 53 cases of syphilis proctitis were identified in 38 articles. 7 additional cases were diagnosed at our institution, totaling 60 cases. All cases of syphilis proctitis were described in individuals of male sex assignment at birth. The age at diagnosis ranged from 15 to 73 years (average 39 years). In 48 cases (92%) men endorsed sex with men. In 27 cases (56%) individuals were HIV co-infected. Syphilis proctitis presented most commonly with hematochezia (68%) and anal pain (48%). The most common physical exam findings were rectal mass (38%), lymphadenopathy (33%), and rash (31%). Non-treponemal titers averaged 1:60 (range 1:2-1:1024). Endoscopy was performed in 52 cases and most commonly showed anorectal mass (42%) and anorectal ulcer (35%). In 38 cases (68%), histopathology revealed a chronic lymphoplasmacytic inflammatory infiltrate, and in 14 of these cases (37%), prominent plasma cells were described. In 24 cases (77%), treponema immunohistochemical stain revealed spirochetes.

Conclusion. Syphilitic proctitis should be suspected in boys and men presenting with lower gastrointestinal symptoms. Histopathology, while suggestive, is not pathognomonic, and serology and specific tissue staining are required to make the diagnosis. Given overlapping symptoms and histology with inflammatory bowel disease, the diagnosis may be delayed resulting in personal and public health consequences. A sexual history should be routinely elicited and further testing for syphilis pursued if exposure is suspected.

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1547. Activity of Tedizolid and Comparator Agents against Gram-Positive Bacterial Isolates Causing Skin and Skin Structure Infections in Pediatric Patients during 2015-2019 in the US

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Session: P-70. Skin and Soft Tissue

Background. New strategies to treat acute bacterial skin and skin structure infections (ABSSSI) are needed due to the spread of methicillin-resistant *Staphylococcus aureus* (MRSA), a common multidrug resistant pathogen of ABSSSIs. Tedizolid (TZD) was approved by the US FDA for treating ABSSSI in adults and is under evaluation for treating pediatric patients. Accordingly, the activity of TZD and comparators was evaluated against clinical surveillance isolates collected from pediatric patients with SSSI in the US.

Methods. A total of 2,758 Gram-positive isolates were collected from pediatric patients with SSSIs in 33 sites in the US between 2015 and 2019 as part of the Surveillance of Tedizolid Activity and Resistance (STAR) Program. Bacterial identification was confirmed by MALDI-TOF MS and susceptibility (S) testing performed by the CLSI reference broth microdilution method. Current CLSI interpretative criteria was applied.

Results. *S. aureus* (SA; n=2,163; 78.4%) was the most frequent pathogen recovered from all age groups (≤ 1y; 2-5y; 6-12y; 13-17y), followed by β-hemolytic streptococci (BHS; n=460; 16.7%), and coagulase-negative staphylococci (CoNS; n=70; 2.5%). TZD was active against all SA ($MIC_{50/90}$, 0.12/0.25 mg/L; 100% S). Equivalent TZD $MIC_{50/90}$ values (0.12/0.25 mg/L) were observed against MRSA (n=886; 41.0%; $MIC_{50/90}$, 0.12/0.25 mg/L) and methicillin susceptible (MSSA; $MIC_{50/90}$, 0.12/0.25 mg/L) isolates, regardless the age group. TZD also was very active against BHS ($MIC_{50/90}$, 0.12/0.25 mg/L; 100% S, regardless of species). TZD, linezolid, and daptomycin had 100.0% S rates against the main Gram-positive species and organism groups (Figure). Ceftaroline and clindamycin showed S rates of >90% against MRSA, MSSA, *S. pyogenes* and *S. dysgalactiae*. Lower S rates were observed for clindamycin against VGS (88.2%) and *S. agalactiae* (64.1%). TZD was the most potent agent (MIC_{90}, 0.25 mg/L) against *Enterococcus faecalis* (n=30, 1.1%), and a vancomycin-resistance phenotype was observed in 1 (3.3%) isolate.

Conclusion. TZD was highly active against Gram-positive clinical isolates responsible for SSSI in pediatric patients across US hospitals from a 5-year period. TZD was equipotent or more potent than comparators against MSSA and MRSA isolates.

Table 1

	Tedizolid			Linezolid			Ceftaroline			Daptomycin		
	MIC (mg/L)		%S[b]	MIC (mg/L)		%S[b]	MIC (mg/L)		%S[b]	MIC (mg/L)		%S[b]
Organism[a] (no. tested)	50%	90%		50%	90%		50%	90%		50%	90%	
MSSA (1,277)	0.12	0.25	100.0	1	2	100.0	0.25	0.25	100.0[b]	0.25	0.5	100.0
MRSA (886)	0.12	0.25	100.0	1	1	100.0	0.5	1	99.0[b]	0.25	0.5	100.0
E. faecalis (30)	0.25	0.25	100.0	1	2	100.0	1	4	-	0.5	1	100.0
BHS (460)	0.12	0.25	100.0	1	2	100.0	≤0.008	≤0.008	100.0	≤0.06	0.25	100.0
S. pyogenes (409)	0.12	0.25	100.0	1	2	100.0	≤0.008	≤0.008	100.0	≤0.06	0.12	100.0
S. agalactiae (39)	0.12	0.25	100.0	1	1	100.0	0.015	0.015	100.0	0.12	0.25	100.0
S. dysgalactiae (12)	0.12	0.25	100.0	1	1	100.0	≤0.008	≤0.008	100.0	≤0.06	≤0.06	100.0
VGS (17)	0.12	0.12	100.0[d]	1	1	100.0	≤0.008	0.06	-	0.12	1	100.0

[a] MSSA = methicillin-susceptible *S. aureus*; MRSA = methicillin-resistant *S. aureus*; BHS = β-hemolytic streptococci; VGS = Viridans group streptococci.
[b] %S = percentage susceptible (CLSI, 2020), according to breakpoint availability.
[c] Tedizolid breakpoint for *S. pyogenes* and *S. agalactiae* used for *S. dysgalactiae*.
[d] Tedizolid breakpoint for *S. anginosus* group used for VGS.

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1548. Association of bacterial colonization in ulcerative lesions of the diabetic foot together with the cicatrization process

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Session: P-70. Skin and Soft Tissue

Background. In 2018, a review of the scientific literature identifed biofilm studies in the past 3 years. Wherein, the role of the biofilm in the progression of the diabetic