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1306. Early Transition to Oral Antibiotics, Including Fluoroquinolone Therapy, for *Streptococcus milleri* Empyema Following Video-Assisted Thoracoscopic Surgery

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Session: P-73. Respiratory Infections - Bacterial

Background. Pleural empyema from *Streptococcus milleri* (*SM*) is often complex and requires a combination of surgery and intravenous (IV) antibiotics. There is a paucity of data on the efficacy of oral (PO) treatment due to concerns about the development of resistance, particularly to fluoroquinolones (FQ). We report outcomes of postoperative antibiotic treatment for *SM* empyema over 3 years, including PO therapy.

Methods. A single-center retrospective chart review was performed of 20 patients treated with video-assisted thoracoscopic surgery (VATS) from October 2015 to March 2018 and *SM* diagnosed by thoracentesis or operative culture. We reviewed clinical factors, route and duration of antibiotics, complications (empyema recurrence, repeat surgery, 30-day readmission due to empyema), and mortality (30-day and 1-year)

Results. Of the 20 patients, 12 (60%) received all IV and 8 (40%) transitioned to PO therapy (Table 1). Median age was 60 and 58 in the IV and PO group, respectively. IV treated patients had more comorbidities. Cultures were primarily monomicrobial. Isolates tested were susceptible (S) to penicillin (Table 1), Of 10 tested specimen, all had moxifloxacin MIC < 0.19 µg/mL and 8/8 specimens tested were S to levofloxacin. The average duration of antibiotic therapy in the IV group was 34 days and 32 days in the PO group. There were no complications in the IV group; however, there were 2 deaths (1 patient died from comorbid complications and 1 patient was readmitted and died due to *MSSA* endocarditis). There were no complications or deaths in patients treated PO.

Table 1. Characteristics and outcomes in *Streptococcus milleri* infections following video-assisted thoracoscopic surgery treated with IV or PO antibiotics

	IV N=12	PO N=8
Median Age (years)	60	58
Average Total Duration of IV/PO antibiotic therapy after surgery (days)	34	32 (5 days IV / 27 days PO)
Organisms on culture	11/12 <i>Strep milleri</i> monomicrobial 1/12 <i>Strep milleri</i> and actinomyces species	8/8 <i>Strep milleri</i>
Susceptibility data (of those tested)	12/12 S to penicillin 2/2 S to levofloxacin 8/8 with moxifloxacin breakpoint ≤0.19	7/7 S to penicillin 6/6 S to levofloxacin 2/2 with moxifloxacin breakpoint ≤0.125
Antibiotic treatment	11/12 IV ceftriaxone 7/12 with po metronidazole 1/12 ampicillin-sulbactam	4/8 levofloxacin 3/8 moxifloxacin 1/8 Penicillin VK
Readmission	1*	0
Complications	1 death	None
Mortality	2 deaths**, 1 within 30 days and 1 within 1 year	0 deaths

IV=intravenous, PO = orally, S=susceptible,

*Readmission due to *MSSA* endocarditis months later

** 1 death from comorbid complications and one death from *MSSA* endocarditis months later

Abstract References

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Conclusion. Our review suggests that early transition to PO antibiotics may be a viable option for operatively managed empyema caused by *SM* in certain patients. FQs have been generally avoided due to concerns about the rapid development of resistance that has been shown *in-vitro*; however, no *in-vivo* data have been reported regarding this concern. We show excellent outcomes with the use of PO therapy in susceptible isolates, particularly FQs, with no failure or reported resistance in patients with *SM* empyema treated with VATS. Further study is needed to validate these findings and determine optimal patient characteristics for transition to PO therapy.

Disclosures. All Authors: No reported disclosures

1307. The Mycoplasma Conundrum

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Session: P-73. Respiratory Infections - Bacterial

Background. Lockdown for Covid 19 between March 15 - 30, 2020 lead to sudden closures of schools, public gatherings, all but essential businesses, and stay-at-home orders. Between then and the end of April 2020, literally all enveloped respiratory viruses declined to virtually undetectable levels, suggesting a successful interruption of transmission. Weekly percentage positivity rates for *M. pneumoniae* and all other respiratory viruses from BioFire Syndromic Trends for weeks ending 3/7/2020- 4/24/2020.