Disclosures. Louise Dembry, MD, MS, MBA, ReadyDock: Consultant, Stock options.

1163. Minocycline EDTA Ethanol (MEDTA+EtOH) Lock Is Highly Efficacious in Rapidly Eradicating *Candida auris* Biofilm

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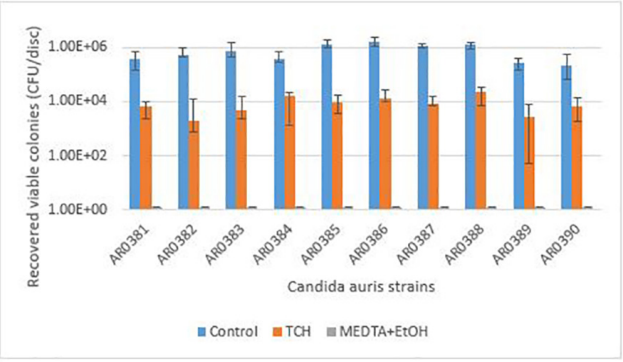
Background. Bloodstream infections due to *Candida auris* are an emerging public health concern due to high prevalence of antifungal resistance and significant rates of patient mortality. *C. auris* is typically azole-resistant; however, several strains have been identified with elevated MICs to all major classes of antifungals. Previously we reported that a synergistic combination of MEDTA+EtOH was highly effective in a clinical trial that evaluated salvage of catheters in patients with bacterial CLABSI. We have also previously reported *in vitro* studies that demonstrated this combination was capable of eradicating ordinary yeast CLABSI pathogens. In this study we evaluated the ability MEDTA+EtOH lock to rapidly eradicate *C. auris* biofilms.

Methods. Biofilm eradication of *C. auris* was evaluated in 10 strains. *Candida auris* biofilm was grown on silicone discs for 24 hours. Discs were then washed to remove any nonadherent organisms and exposed for 60 minutes to 1 mg/mL Minocycline + 30 mg/mL EDTA + 25% Ethanol (MEDTA+EtOH) lock solution. 1.35% Taurolidine + 3.5% Citrate + 1000U Heparin (TCH) lock solution was used as a comparator. Discs were exposed to Muller–Hinton broth as a control. Subsequently discs were sonicated for 15 minutes in 5 mL of saline and quantitatively cultured onto sabouraud dextrose agar. Plates were incubated at 37°C for 48 hours and counted for growth. All testing was conducted with 6 replicates.

Results. Median and range of recovered viable colonies are presented below. MEDTA+EtOH was significantly more efficacious compared with control ($P = 0.002$ for all strains) in completely eradicating all replicates in all 10 strains of *C. auris* tested. MEDTA+EtOH was also superior compared with TCH lock solution ($P = 0.002$) for all strains.

Conclusion. MEDTA+EtOH is highly effective and was superior to TCH and positive control in the rapid *in vitro* eradication of all 10 strains of *C. auris* biofilms tested.



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

1164. *In vitro* Antimicrobial Efficacy of Novel Antimicrobial Dacron Vascular Grafts in the Inhibition of Multidrug-Resistant Gram-Negative Biofilm

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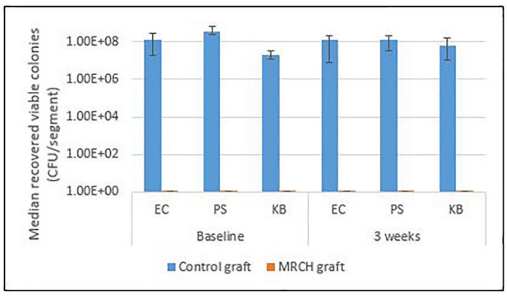
Background. Vascular graft infections can be a devastating complication in vascular reconstructive surgery. Management of these infections is highly invasive and includes excision of the graft, debridement of infected material, and in situ reconstruction. There is a need for additional strategies for infection prevention in graft surgeries. The minocycline + rifampin + chlorhexidine (MRCH) triple combination had been previously demonstrated to be effective against biofilm formation in central venous catheters. In this study, we evaluated *in vitro* effectiveness and durability of MRCH coated Dacron vascular grafts in inhibiting multidrug-resistant Gram-negative biofilm formation.

Methods. Dacron vascular grafts were coated with MRCH based on a proprietary method. Antimicrobial efficacy at baseline and 3-week durability was assessed using a well-established *in vitro* biofilm colonization model. Multidrug-resistant Gram-negative pathogens tested include CRE *Escherichia coli* (EC), MDR *Pseudomonas aeruginosa* (PS) and CRE *Klebsiella pneumoniae* (KB). Antimicrobial durability was assessed for grafts that had been eluting in serum for 3 weeks prior to testing. Baseline and 3-week grafts were quantitatively culture to enumerate any biofilm viable biofilm colonization. Uncoated Dacron grafts were used as controls.

Results. At baseline and 3 weeks MRCH vascular grafts completely inhibited biofilm formation resulting in an 8-$\log_{10}$ reduction in bacterial colonization compared with uncoated grafts.

Conclusion. MRCH coated Dacron vascular grafts demonstrated *in vitro* effectiveness for at least 3 weeks in preventing biofilm colonization by multidrug-resistant Gram-negative pathogens. Further *in vivo* testing is warranted.



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

1165. Risk Factors for Bloodstream Infections During Extracorporeal Membrane Oxygenation (ECMO)

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Background. Although bloodstream infections (BSIs) are important complications of ECMO, data on clinical characteristics of ECMO-associated BSIs remain limited. This study aimed to investigate clinical characteristics of ECMO-associated BSIs and evaluate the role of routine active surveillance cultures (ASCs) in predicting subsequent BSIs.

Methods. We reviewed the medical records of adult patients who received ECMO for >48 hours in 2 teaching hospitals between January 2013 and March 2019. ECMO-associated BSIs were defined as bacteremia occurring from 48 hours after ECMO initiation. ASCs for multidrug-resistant organisms were obtained from nasal, axillary, inguinal, and rectal swabs when patients were admitted to the ICUs.

Results. Overall, 28 of 110 (25.4%) patients had BSIs within the median 7 days after ECMO initiation. Table 1 shows the clinical characteristics of patients with ECMO-associated BSIs. Among BSI cases, the most common pathogens were *Candida spp*. (25%). Longer ECMO days ($P < 0.01$), steroid use ($P = 0.02$), and more blood transfusions ($P < 0.01$) were associated with BSIs. However, there was no association between the results of ASCs and subsequent pathogens of BSIs.

Conclusion. BSIs during ECMO were associated with longer ECMO duration, steroid use and blood transfusion. The pathogens of BSIs could not be related to ASCs.

Table 1. Clinical characteristics of patients between with and without ECMO-associated BSIs

	Non-BSI (n=82)	BSI (n=28)	*P-value*
Age, median (range)	61 (52 - 70)	68 (53 -75)	0.06
Male	58 (71)	17 (61)	0.33
SOFA score on ECMO initiation, media (range)	12 (7-15)	12 (11-16)	0.61
Indication for ECMO			
Acute myocardial infarction	13 (16)	3 (11)	0.76
Post arrest	12 (15)	3 (11)	0.76
Pulmonary thromboembolism	10 (12)	2 (7)	0.73
Acute respiratory failure	28 (34)	12 (43)	0.41
Postcardiotomy stunning	2 (2)	2 (7)	0.27
others	17 (21)	7 (25)	0.64
Type of ECMO			
Veno-venous	25 (31)	10 (36)	0.61
Veno-arterial	43(52)	9 (32)	0.06
Veno-venous-arterial	14 (17)	9 (32)	0.09
ECMO days, median (range)	5 (3 - 9)	9 (5 - 22)	0.001
Corticosteroid use	37 (45)	20 (71)	0.02
Broad-spectrum antibiotics	62 (76)	25 (89)	0.12
Parenteral nutrition support	54 (70)	23 (82)	0.1
RBC Transfusion, units	11 (7 - 21)	27 (14 - 56)	0.0001
Positive surveillance culture	14 (17)	2 (7)	0.35
Etiology of BSI			
Candida spp.	-	7 (25)	
Enterococcus feacium	-	5 (18)	
Enterococcus fecalis	-	3 (11)	
Coagulase negative staphylococci	-	5 (18)	
Kebsiella spp.	-	3 (11)	
Polymicrobial	-	6 (21)	
Others*	-	11 (39)	
Mortality	50 (61)	24 (86)	0.02

ECMO, extracorporal membrane oxygenation;SOFA, Sequential organ failure assessment;RBC, red blood cell;BSI, blood stream infection

*Others were *Streptococcus pneumoniae, Pseudomonas aeruginosa, Acinetobacter baumannii, Burkholderia cepacia, Serratia marcescens, Bacillus spp. Corynebacterium spp. Aspergillus spp*..

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