Is a single positive blood culture for Enterococcus species representative of infection or contamination? | 1

“Data on the clinical outcomes of patients with a single compared with multiple positive blood cultures for Enterococcus species is limited. We undertook a retrospective cohort study in adults with at least one positive blood culture for Enterococcus species in a single institution.” Jindai et al (2014).

Reference:


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Abstract:

Data on the clinical outcomes of patients with a single compared with multiple positive blood cultures for Enterococcus species is limited. We undertook a retrospective cohort study in adults with at least one positive blood culture for Enterococcus species in a single institution. Clinical outcomes included death and elimination of infection. We included 471 positive blood cultures from 206 enterococcal positive blood culture episodes in 189 patients. Multiple positive blood cultures for Enterococcus species occurred in 110/206 (53.4 %) episodes; 31.6
% of patients had diabetes mellitus; 42.9 % of patients had solid or hematologic malignancy; 26.5 % of patients were solid organ transplant recipients; hospital-acquired and healthcare-associated acquisition represented 55.3 % and 33.0 % of episodes, respectively. Thirty-five patients died and 110 episodes of enterococcal bloodstream infection were successfully treated. In the multivariable analysis, multiple positive blood cultures were not statistically significantly associated with an increased likelihood of in-hospital death or elimination (OR 1.41, 95 % CI 0.76-2.64) compared with single positive blood cultures. Hematologic malignancy and diabetes mellitus were independently associated with in-hospital death (OR 2.83, 95 % CI 1.02-7.82; OR 2.79, 95 % CI 1.16-6.70, respectively). Infectious disease consultation was associated with a greater likelihood of elimination (OR 2.50, 95 % CI 1.32-4.72). The clinical outcomes of patients with single versus multiple positive blood cultures with Enterococcus species were similar in our institution. Further studies should examine efficient methods to detect contamination versus true infection.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).

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