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613.ACUTE MYELOID LEUKEMIAS: CLINICAL AND EPIDEMIOLOGICAL

Utility of Echocardiogram in Neutropenic Patients with Gram Positive Bacteremia: A Retrospective Study

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Introduction: Hemato-oncology patients are vulnerable to bloodstream infections (BSI) due to their immunocompromised and neutropenic state, and the common use of intravascular catheters. The risk of infective endocarditis (IE) among non-neutropenic patients with gram positive bacteremia is substantial, however the risk is considered to be lower among neutropenic patients, though data is limited. We aimed to evaluate the incidence of IE among neutropenic hemato-oncology patients' cohort, and to explore the yield of echocardiogram in this specific population.

Methods: A single center, retrospective study. Between 01/2007 and 12/2019, hospitalized patients in the Hematology department consisting of the hemato-oncology and bone marrow transplantation units were included, if they had positive blood cultures for specific organisms known to cause IE while neutropenic. Patient characteristics, results and timing of blood cultures and echocardiogram obtained during hospitalization were collected.

Results: Two hundred seventy-four patients had positive blood cultures with pathogens known to be associated with IE. Overall, 340 isolates have been identified. After excluding 57 *coagulase negative staphylococcus* (CONS) isolates which were suspected as a contamination (identified in a single collection), 241 patients were included with 283 isolates. CONS were the most commonly isolates found, followed by *streptococcus viridans*, comprising 31.4% (89) and 24.3% (69) of isolates, respectively. Trans thoracic echocardiography (TTE) was performed in 108 (45%) patients overall, of which 14 (5.8%) had additional trans esophageal echocardiogram (TEE).

Only one case of IE was diagnosed in our series, of a forty-seven-year-old female patient with a diagnosis of multiple myeloma in relapse after autologous stem cell transplantation. The patient presented with a stroke caused by septic emboli, fever and *streptococcus viridans* bacteremia. Lab works showed neutropenia of 0K/micl and thrombocytopenia of 8K/micl. TTE and TEE failed to demonstrate valvular pathology consistent with IE in this case. Valvular vegetations have not been identified on TTE nor on TEE in any other case as well.

Conclusion In our experience, the yield of echocardiogram in hemato-oncological neutropenic patients with gram positive bacteremia is extremely low, owing to reduced probability of IE in this population, and thus could be avoided in most cases.

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