Staphylococcus Aureus Endocarditis Complicated by Endophthalmitis in a Young Patient with Cirrhosis

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Background

- The nature and incidence of various infections in cirrhosis remain to be defined
- It is unclear whether cirrhosis-associated immune dysfunction predisposes to specific infections and associated clinical syndromes
- Various reports in the literature suggest that liver dysfunction is a significant risk factor for bacterial endocarditis
- We present the case of a young patient with cirrhosis secondary to autoimmune hepatitis that presented with MRSA bacteremia

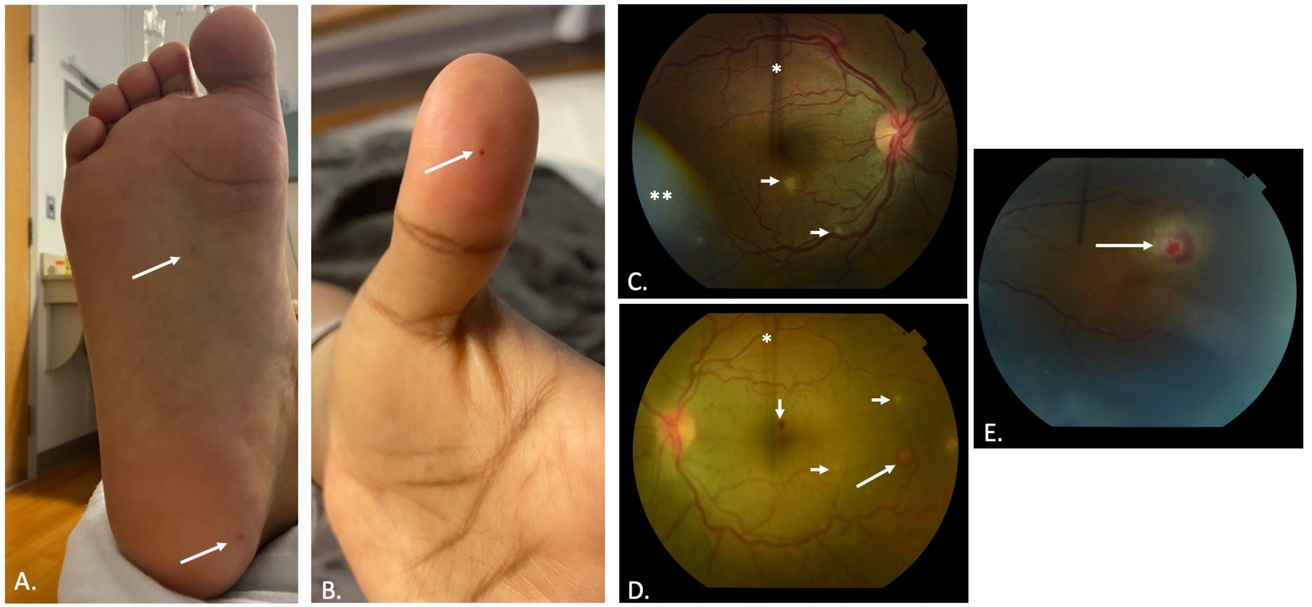

Figure 1: A. Right foot with Janeway Lesions (white arrows). **B.** Left palm with a single prominent Janeway lesion (white arrow). **C.** Right Eye Fundus with retinal infiltrates. Single (*) indicates the eyelashes, (**) indicates flare artefact. **D.** Left Eye Fundus with Roth spots (long arrow), retinal infiltrates (short horizontal arrows) and retinal hemorrhage (perpendicular arrow). **E.** Left Eye Fundus magnification demonstrating a single prominent Roth spot

Discussion

- This case demonstrates that cirrhosis, can potentially predispose to significant and uncommon infections in the absence of traditional risk factors
- This is particularly true when cirrhosis is secondary to autoimmune hepatitis treated with steroids and/or other immunosuppressive agents
- The acuity of the patient's presentation and the propensity to develop severe and rare complications (i.e. endophthalmitis) indicates that cirrhotic patients might have worse clinical outcomes than the average person

Case Description

A 31-year-old female with a prior medical history of autoimmune hepatitis (AIH) complicated by cirrhosis and recently diagnosed pancytopenia secondary to azathioprine presented with a one-day history of vomiting, headaches, and fevers. Notable laboratory findings on presentation included mild pancytopenia and a MELD score of 21. On the first day of hospitalization, the patient endorsed intermittent blurry vision and eye pain with associated photophobia. Admission blood cultures grew methicillin-resistant Staphylococcus Aureus. Careful physical examination of the extremities demonstrated characteristic Janeway lesions. An echocardiogram was obtained, which was significant for a thickened mitral valve and associated trace mitral regurgitation. Dilated eye examination revealed bilateral Roth spots, intraretinal haemorrhages, and retinal infiltrates, findings concerning for endophthalmitis. The patient was initiated on intravenous Vancomycin and received a single left eye intravitreal Vancomycin injection. Blood cultures were cleared after four days of antibiotics, and her condition gradually improved over the course of two weeks. The patient was discharged on a 6-week course of IV Vancomycin and close ophthalmological follow-up. Her course was complicated by a vancomycin-induced drug rash and associated acute kidney injury prompting completion of antibiotic course with daptomycin. Fundoscopic examination two months after presentation demonstrated complete resolution of her eye infection and associated retinal findings.

Conclusions

- Our observations are consistent with previous reports in the literature
- This case emphasizes that clinicians should have a low index of suspicion to consider infectious endocarditis in cirrhotic patients

References

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