

# Endogenous Endophthalmitis: Yield of the Diagnostic Evaluation

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## Research article

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## Abstract

Background : Endogenous endophthalmitis is an infection of the eye secondary to sepsis, occurring in 0.04-0.5% of bacteremia or fungemia. Risk factors include intravenous drug abuse (IVDA), diabetes, indwelling catheters, and immune suppression. Many patients have known or suspected bacteremia or fungemia; however, culture yield is reported to be low (approximately 50%). Methods: Retrospective chart review of patients with endogenous endophthalmitis at the University of Florida from June 2011 to February 2018. Results: Included are 40 eyes of 35 patients. Endophthalmitis was secondary to an endogenous source in 23.5% of all endophthalmitis cases observed. Intraocular culture positivity was 28.6% overall but was 0% after initiation of systemic antibiotics. Most commonly identified organisms from the eye were coagulase-negative *Staphylococcus* and *Candida* . Blood culture positivity was 48.6%, most commonly *Staphylococcus* . IVDA was noted with increasing frequency as a risk factor. Diagnosis of endophthalmitis upon hospital admission was associated with a higher intraocular culture positivity ( $P = 0.040$ ) and a shorter hospital stay ( $P = 0.035$ ). Computed tomography (CT) and magnetic resonance imaging (MRI) were the highest yield imaging modalities; X-ray and non-ocular ultrasound were less diagnostically useful. Echocardiogram was positive by transesophageal route (TEE) in 22% and in 9% by transthoracic (TTE) testing. Following discharge from the hospital, 48.4% of patients failed to follow up with outpatient ophthalmology. Conclusions: Based on the results of this study, the interdisciplinary team should consider directed imaging, eye cultures prior to antimicrobial administration, thorough history for IVDA, and caution with premature discharge from the hospital.

## Preprint Retracted

This preprint has been retracted as it was posted in error.