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## Trends in the Sources of Endophthalmitis at Kresge Eye Institute

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## Trends in the Sources of Endophthalmitis at Kresge Eye Institute

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### Purpose

Endophthalmitis is defined as a purulent inflammation of the intraocular fluids, namely the vitreous and aqueous humor. Endophthalmitis most commonly develops from infection but can also be acquired from inflammatory and neoplastic conditions. We sought to determine these sources at our institute and to look for trends in our urban population.

### Methods

A retrospective chart review of patients who attended the Kresge Eye Institute in Detroit, MI between 2003 to 2018 was performed. Patient list was identified from our EMR using the diagnoses codes related endophthalmitis. Information gathered included demographics, type of tissue/fluid cultured, the presumed source of endophthalmitis as well as culture results and sensitivities to anti-microbials, if known.

### Results

From billing results, 168 patients were identified, of these, 101 with culture results were included. The average age of patients was 63.7 years old and 52% were female. Majority of the samples were of vitreous (72.3%), 21 were aqueous humor, and 3 from retinal tissue. Culture results were negative in 60 patients, positive for bacteria in 30, and positive for fungi and viruses respectively in 4 patients. Gram-positive bacteria including staph epidermidis were the most common pathogens cultured. Presumed sources of endophthalmitis included 29 patients who were post-op, 17 in whom the source was endogenous and exogenous in 14. Other sources included bleb-induced, post injection and unknown.

### Conclusion

We believe this information will prove beneficial in guiding diagnosis and management strategies of endophthalmitis in urban populations. Future directions include the analysis of the specific organisms involved and their susceptibilities. We will use this information to create an institutional biogram which will prove especially useful in the age of antibiotic resistance.

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