Endophthalmitis After Intravitreal Injections
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Purpose
Endophthalmitis is a rare but potentially vision devastating complication of intravitreal injections. Although very rare, it is an important and growing concern since the number of intravitreal injections performed has dramatically increased in the last 10 years. The purpose of this study is to retrospectively evaluate the endophthalmitis data in our ophthalmology clinic since January 2011.

Methods
Using CBT codes, we located every patient who has received the diagnosis of Endophthalmitis from January 2011 through December 2013. Patients were then screened and divided based on the etiology of their endophthalmitis (endogenous vs intravitreal injection vs post surgery vs other) and only the patients whose endophthalmitis was determined to be from intravitreal injections were included in the study. We recorded the date the patient received the injection, the medicine injected, presenting symptoms, microbial culture results, and the date of first presentation of symptoms after the injection.

Results
14,519 intravitreal injections were performed in the time period selected and 7 cases of clinically suspected endophthalmitis. Four patients had positive intravitreal cultures (Staphylococcus coagulase negative (A) in three patients, Streptococcus viridans group (A) in one patient). Five patients received only Avastin, one patient received Ozurdex only, and one received Eylea only.

Culture results
- Staphylococcus coag negative
- Staphylococcus viridans

Three of seven patients presented in less than three days after receiving intravitreal injections while the remaining four patients presented at one week or greater. All patients presented with complaints of decreased vision and eye pain. Thus, only two patients presented in greater than seven days. All patients subsequently received intravitreal antibiotic injections of Vancomycin and Ceftazidime and vitreous tap sent for culture.

Days to presentation
- Avastin
- Eylea
- Ozurdex

Endophthalmitis is a rare, but potentially vision threatening infection. Early diagnosis and treatment is critical to prevent long term complications and blindness. Our study is limited by its retrospective nature. However, some important clinical results have been revealed. Only two patients were examined at the time of their one week checkup and determined to be normal, the remaining 5 patients were either diagnosed at their one week check or even sooner. Thus, moving the post injection check up any sooner than one week would decrease the sensitivity of diagnosing endophthalmitis. We have confirmed that our current endophthalmitis rates are in line with the national reported average.