

A Unique Case of Bilateral Endogenous Endophthalmitis

Abstract:

Bilateral endogenous bacterial endophthalmitis (EBE) is a very rare event and is associated with significant morbidity. Approximately 89% of all EE cases are unilateral and the majority are from infective endocarditis related to *S. Aureus*. To our knowledge, the present study is the only documented case of endophthalmitis from MSSA originating from a prevertebral abscess. Additionally our patient had bilateral disease yielding this case exceedingly rare. Unfortunately, diagnosis was delayed, resulting in poor visual function bilaterally. This case highlights the importance of identifying EBE early in the disease process, recognize disseminated infection, prevent vision loss, and minimize morbidity and mortality.

Approximately 92-98% cases of endophthalmitis are exogenous, resulting primarily after eye surgery, intravitreal injections or penetrating trauma. The remaining 2-8% of cases are endogenous (EE), approximately 50% of which are from infective endocarditis. Exceedingly rarely do prevertebral abscesses lead to endophthalmitis and of all forms of EE, only 19% are bilateral¹. Our present case is unique due to the origin of the endophthalmitis as well as the bilateral nature of the disease.

Regarding visual outcome, microbiological factors have been well-linked in the literature. One study reviewed 420 cases of EE and found that visual acuity of 20/100 or better were most commonly seen in gram positive, coagulase-negative micrococci (84%), followed by *S. Aureus* (50%). However, No present research could be found to predict visual outcome based on duration between symptom onset and diagnosis of EE. This is a true concern as Budoff G et al

reviewed 342 cases of EE and found that a whopping 26% were delayed in diagnosis².