

[ LETTERS TO THE EDITOR ]

**Response by Aoyama et al. to Letter Regarding Case Report, “The Early Diagnosis of Endophthalmitis Due to Group B Streptococcus Infective Endocarditis and Its Clinical Course: A Case Report and Literature Review”: Vitrectomy or Not?**

**Key words:** endogenous bacterial endophthalmitis, infective endocarditis, vitrectomy

(Intern Med 58: 2757, 2019)

(DOI: 10.2169/internalmedicine.3000-19)

**The Authors Reply** We thank Fukuchi et al. for the letter and important points concerning our case report and literature review, “The Early Diagnosis of Endophthalmitis Due to Group B Streptococcus Infective Endocarditis and Its Clinical Course: A Case Report and Literature Review,” in Internal Medicine (1).

As Fukuchi et al. mentioned, vitrectomy has been recommended as an option for improving the visual outcome of endogenous bacterial endophthalmitis (EBE). Although endophthalmitis itself is rare, postoperative endophthalmitis accounts for a significant percentage of all cases and causes regional inflammation. In the previous paper cited by Fukuchi et al., a randomized clinical trial comparing vitrectomy versus intravitreal antibiotics in 420 patients with clinically postoperative endophthalmitis (2), vitrectomy benefitted only patients who still had light perception before the procedure. The purpose of vitrectomy in such cases is to remove regional infective agents. However, we believe that the situation in our case differed from that in the previous trial.

In our case, EBE was due to infective endocarditis caused by Group B *Streptococcus*. Our case was very rare, and in the few case reports similar to ours, the patients also showed a poor visual outcome. Our case was also considered well-indicated for vitrectomy, because he had light perception at admission. However, vitrectomy is known to carry a risk of postoperative complications. Therefore, it is important to weigh all of the potential risks against the potential advantages before proceeding (3). Since our patient had infective

pericarditis, the ophthalmologist decided that the systematic intravenous administration of antibiotics was the most prudent approach.

Several previous studies have reported that vitrectomy helped improve the visual outcome in patients with EBE, but these reports were limited by the small number of cases involved (4). Therefore, there remains no clear consensus as to whether or not vitrectomy should be performed in patients with EBE. In our previous review, only two of eight patients underwent vitrectomy (1). Although EBE complicated with infective endocarditis is acknowledged to have a worse visual prognosis than postoperative endophthalmitis, as we showed in our previous review, whether or not vitrectomy should be selected as a strategy for preventing a poor visual outcome remains to be determined. In cases of EBE complicated with infective endocarditis, we need to select optimal treatments on a case-by-case basis.

**The authors state that they have no Conflict of Interest (COI).**

Yutaka Aoyama<sup>1</sup>, Yusuke Oba<sup>1</sup>, Satoshi Hoshide<sup>1</sup>,  
Yusuke Arai<sup>2</sup>, Takahiro Komori<sup>1</sup>, Tomoyuki Kabutoya<sup>1</sup> and  
Kazuomi Kario<sup>1</sup>

**References**

1. Aoyama Y, Oba Y, Hoshide S, et al. The early diagnosis of endophthalmitis due to group B streptococcus infective endocarditis and its clinical course: a case report and literature review. Intern Med 58: 1295-1299, 2019.
2. Results of the endophthalmitis vitrectomy study. A randomized trial of immediate vitrectomy and of intravenous antibiotics for the treatment of postoperative bacterial endophthalmitis. Endophthalmitis vitrectomy study group. Arc Ophthal 113: 1479-1496, 1995.
3. Gower EW, Keay LJ, Stare DE, et al. Characteristics of endophthalmitis after cataract surgery in the united states medicare population. Ophthalmology 122: 1625-1632, 2015.
4. Yonekawa Y, Chan RV, Reddy AK, Pieroni CG, Lee TC, Lee S. Early intravitreal treatment of endogenous bacterial endophthalmitis. Clin Exp Ophthalmol 39: 771-778, 2011.

The Internal Medicine is an Open Access journal distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view the details of this license, please visit (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

<sup>1</sup>Division of Cardiovascular Medicine, Department of Internal Medicine, Jichi Medical University School of Medicine, Japan and <sup>2</sup>Department of Ophthalmology, Jichi Medical University School of Medicine, Japan

Received: March 10, 2019; Accepted: March 11, 2019; Advance Publication by J-STAGE: June 7, 2019

Correspondence to Dr. Satoshi Hoshide, [hoshide@jichi.ac.jp](mailto:hoshide@jichi.ac.jp)

© 2019 The Japanese Society of Internal Medicine. Intern Med 58: 2757, 2019