

Response to: Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery at a referral hospital

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Dear Editor,

We have read with great interest the article by Livia da Silva Conci, Arthur Pinheiro Favarato, and Alexandre Grobberio Pinheiro⁽¹⁾. In response to this article⁽¹⁾, which we assert is a well-thought out and written paper, I am wondering if blepharitis was preoperatively diagnosed for patients who were diagnosed with endophthalmitis after the operation. As we already know and based on the literature, blepharitis is a known risk factor for endophthalmitis⁽²⁻⁴⁾. At our clinic, the Trakya University Faculty of Medicine and Education and Research Hospital, we applied the same dose of cefuroxime at the end of the operation intracamarally, for approximately 25 years. Our faculty of medicine hospital, which is a tertiary referral hospital, has a low rate of endophthalmitis. As described in a past article⁽¹⁾, this type of usage of cefuroxime is extremely cost effective in the preventive treatment of endophthalmitis. However, despite the preventional therapies such as the application of 5% povidon iodine before the cataract surgery and cefuroxime injection at the end of the operation, in patient dependent insufficiencies, such as diabetes mellitus, blefaritis, and immunosufficiencies, endophthalmitis can occur. I wonder whether there exists preoperational data on the clinical features of patients diagnosed with endophthalmitis after the operation in the present study⁽¹⁾. In the article by Conci et al.⁽¹⁾, efficiency of cefuroxime injection is well described. We are indeed indebted to all the authors⁽¹⁾.

Despite the advances made in the treatment and diagnosis of endophthalmitis, postoperative endophthalmitis (POE) still cannot be entirely managed after a cataract surgery⁽⁵⁾. The complete pathophysiology of endophthalmitis also remains to be clarified⁽⁵⁾. Thus, to reduce the overall risk, all preventional actions must be considered.

AUTHOR CONTRIBUTION

Substantial contribution to conception and design: Goksu Alacamli. Acquisition of data: Goksu Alacamli. Analysis and interpretation of data: Goksu Alacamli. Drafting of the manuscript: Goksu Alacamli. Critical revision of the manuscript for important intellectual content: Goksu Alacamli. Have given final approval of the submitted manuscript (mandatory participation for all authors): Goksu Alacamli. Statistical analysis: no statistical analyses. Obtaining funding: None. Administrative, technical, or material support supervision: Goksu Alacamli. Research group leadership: Goksu Alacamli.

REFERENCES

1. Conci LD, Favarato AP, Pinheiro AG. Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery in a referral hospital. *Arq Bras Oftalmol* [Internet]. 2023[cited 2023 Sep 15];86(4):308-13. Available from: SciELO - Brasil - Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery in a referral hospital Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery in a referral hospital
2. Moshfeghi DM, Kaiser PK, Scott IU, Sears JE, Benz M, Sinesterra JP, et al. Acute endophthalmitis following intravitreal triamcinolone acetonide injection. *Am J Ophthalmol*. 2003;136(5):791-6. Comment in: *Am J Ophthalmol*. 2003;136(5):918-9.
3. Speaker MG, Milch FA, Shah MK, Eisner W, Kreiswirth BN. Role of external bacterial flora in the pathogenesis of acute postoperative endophthalmitis. *Ophthalmology*. 1991;98(5):639-49; discussion 650.
4. Shimizu Y, Toshida H, Honda R, Matsui A, Ohta T, Asada Y, et al. Prevalence of drug resistance and culture-positive rate among microorganisms isolated from patients with ocular infections over a 4-year period. *Clin Ophthalmol*. 2013;7:695-702.
5. Montan P. Endophthalmitis. *Curr Opin Ophthalmol*. 2001;12(1):75-81.

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Response to Letters to Editor: Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery at a referral hospital

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Dear Editor,

We thank you for the opportunity to respond to Dr. Alacamli's letter and clarify the issues regarding our study. We also extend our gratitude to Dr. Alacamli for taking an interest in our publication and expressing his concerns.

The aim of our study was to evaluate the clinical and economic impact of intracameral cefuroxime administration so as to prevent endophthalmitis occurring during a cataract surgery⁽¹⁾. Our results indicated that the incidence of endophthalmitis decreased by 86% after introducing intracameral cefuroxime prophylaxis at the study hospital⁽¹⁾. In addition, our approach had an economic impact of the numbers of patients who needed the treatment, which was 568⁽¹⁾. The potential savings with cefuroxime was thus approximately US \$2,334.36 for every 568 patients who were treated⁽¹⁾. Therefore, we conclude that intracameral cefuroxime intervention is an effective and cost-effective approach toward preventing endophthalmitis after phacoemulsification surgeries⁽¹⁾.

However, notably, our study has several limitations owing to its retrospective nature. Unfortunately, we could not obtain the exact clinical details on endophthalmitis' risk factors, such as preoperative blepharitis. This data could have added further relevance to our study findings. Despite these limitations, our study corroborates the clinical trial results in a large clinical practice outcomes database, which further confirms the value of prophylactic cefuroxime administration.

Once again, we deeply thank Dr. Alacamli for his contribution to this discussion.

REFERENCES

1. Conci LD, Favarato AP, Pinheiro AG. Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery in a referral hospital. *Arq Bras Oftalmol* [Internet]. 2023[cited 2023 Sep 15];86(4):308-13. Available from: SciELO - Brasil - Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery in a referral hospital Cost effectiveness of intracameral cefuroxime prophylaxis and its efficacy in preventing endophthalmitis after cataract surgery in a referral hospital.