

Intracameral moxifloxacin after cataract surgery: a prospective study

Moxifloxacino intracameral após cirurgia de catara: estudo prospectivo

Eduardo Damous Feijó¹

1. Department of Oculoplastic Surgery of the Ophthalmologic, Hospital de Anápolis, Goiás, Brazil.

Dear Editor,

We read with interest the article entitled “Intracameral moxifloxacin after cataract surgery: a prospective study,” presented by Lucena et al.⁽¹⁾. The authors studied the safety parameters associated with application of intracameral moxifloxacin 5 weeks after cataract surgery. The authors evaluated a consecutive sample of 1,016 cataract surgeries. The primary endpoint was the incidence of acute postoperative endophthalmitis (AEO). The study’s secondary endpoints were intraocular pressure, corrected distance visual acuity, and mean change in corneal endothelial cell density. No case of AEO was reported. Intracameral application of moxifloxacin is therefore considered safe. However, it is not possible at this time to conclude whether the absence of AEO observed among the study population is attributable to intracameral moxifloxacin application, use of a topical antiseptic agent, or postoperative administration of moxifloxacin eye drops. Recent publications have reported that an increase in the use of intracameral antibiotics was associated with a decrease in the incidence of AEO from 0.14% to 0.05%⁽²⁾. The decrease in relative risk for AEO decreased by 60%, whereas absolute risk reduction (ARR) was 0.09%. We sought to determine whether

a significant ARR of 0.09% was justified in terms of cost-effectiveness.

To answer this question, we calculated the number needed to treat (NNT) to prevent one additional poor outcome. The NNT is the inverse of the ARR: in this case, $100/0.09=1.111$ patients⁽³⁾. Intracameral moxifloxacin must be used to treat 1.111 in order to prevent one poor outcome. Although the impact of one case of AEO is substantial, impact should not be confounded with risk. We therefore ask readers to consider intracameral moxifloxacin application is cost-effective for the prevention of AEO.

REFERENCES

1. Lucena NP, Pereira IM, Gaete MI, Ferreira KS, Mélega MV, Lira RP. Intracameral moxifloxacin after cataract surgery: a prospective study. *Arq Bras Oftalmol.* 2018;81(2):92-4. doi.org/10.5935/0004-2749.20180022.
2. Creuzot-Garcher C, Benzenine E, Mariet AS, de Lazzer A, Chiquet C, Bron AM, et al. Incidence of acute postoperative endophthalmitis after cataract surgery: a Nationwide Study in France from 2005 to 2014. *Ophthalmology.* 2016;123(7):1414-20. doi: 10.1016/j.ophtha.2016.02.019
3. Mendes D, Alves C, Batel-Marques F. Number needed to treat (NNT) in clinical literature: na appraisal. *BMC Med.* 2017;15(1):112. doi: 10.1186/s12916-017-0875-8.

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Corresponding author: Eduardo D. Feijó.

Av. Faiad Hanna, 235 - Anápolis, GO - 75080-410 - Brazil
E-mail: eduardodff@yahoo.com.br

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