

The ESCRS Study of Prophylaxis of Postoperative Endophthalmitis After Cataract Surgery – 2006



Objective

To assess the impact of the antibiotic prophylaxis on the rates of endophthalmitis after cataract surgery.

Methods

Design: Partially-masked randomized placebo-controlled clinical study

Sample Size: N = 13,698

Treatment Groups:

A: Neither intracameral cefuroxime nor perioperative levofloxacin (3438 to Group A)

B: Intracameral cefuroxime only (3408 to Group B)

C: Perioperative levofloxacin only (3424 to Group C)

D: Both intracameral cefuroxime and perioperative levofloxacin (3428 to Group D)

Outcome Measures:

- Total reported endophthalmitis
- Proven infective endophthalmitis

Results

Point 1: Risk of developing endophthalmitis following cataract surgery was significantly reduced by **intracameral injection of cefuroxime** at the end of surgery.

- The incidence rate of any endophthalmitis in groups without cefuroxime prophylaxis demonstrated a *nearly* 5-fold increase compared to those treated with cefuroxime (OR, 4.59; 95% CI, 1.74-12.08; $P = 0.002$).
- The incidence rate of proven infective endophthalmitis in groups without cefuroxime prophylaxis demonstrated *greater than* a 5-fold increase compared to those treated with cefuroxime (OR, 5.32; 95% CI, 1.55-18.26; $P = 0.008$).
- Perioperative levofloxacin did not produce a statistically significant reduction

Point 2: Results of this study are congruent with those from other similar studies that investigated endophthalmitis after cataract surgery.

- Montan et al. also utilized intracameral cefuroxime.
- Garat et al. utilized intracameral cefazolin.

TLDR: Intracameral cefuroxime administered at the time of surgery significantly reduced the risk of developing endophthalmitis after cataract surgery.

Barry, P., Seal, D. V., Gettinby, G., Lees, F., Peterson, M., Revie, C. W., & ESCRS Endophthalmitis Study Group (2006). ESCRS study of prophylaxis of postoperative endophthalmitis after cataract surgery: Preliminary report of principal results from a European multicenter study. *Journal of cataract and refractive surgery*, 32(3), 407–410. <https://doi.org/10.1016/j.jcrs.2006.02.021>

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