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Causative Pathogens of Endophthalmitis After Intravitreal Anti-VEGF Injection: An International Multicenter Study

Catharina Busch^{1 2 3}, Matias Iglicki⁴, Mali Okada⁵, Pierre-Henry Gabrielle^{6 7}, Shai Cohen⁸, Miriana Mariussi⁹, Atchara Amphornphruet¹⁰, Zafer Cebeci¹¹, Voraporn Chaikitmongkol¹², Aude Couturier¹³, Samantha Fraser-Bell¹⁴, Adrian T Fung^{14 15 16}, Danilo Iannetta^{17 18}, Liga Radecka¹⁹, Inês Laíns^{20 21}, Tiago M Rodrigues²⁰, Marco Lupidi²², Małgorzata Ozimek²³, Anna Sala-Puigdollers²⁴, Matus Rehak³, Anat Loewenstein^{25 26}, Dinah Zur²⁷, for the International Retina Group (IRG)

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Abstract

Purpose: The main objective of this study was to investigate the microbiological spectrum of endophthalmitis after anti-VEGF injections and to compare streptococcal with non-streptococcus-associated cases with regard to baseline characteristics and injection procedure.

Methods: Retrospective, international multicenter study of patients with culture-positive endophthalmitis after intravitreal anti-VEGF injection at 17 different retina referral centers.

Results: Eighty-three cases with 87 identified pathogens were included. Coagulase-negative staphylococci (59%) and viridans streptococci (15%) were the most frequent pathogens found. The use of postoperative antibiotics and performance of injections in an operating room setting significantly reduced the rate of streptococcus-induced endophthalmitis cases (p = 0.01 for both).

Conclusion: We found a statistically significant lower rate of postinjection local antibiotic therapy and operating room-based procedures among the streptococcus-induced cases compared to cases caused by other organisms.

Keywords: Endophthalmitis; Intravitreal injection; Vascular endothelial growth factor.

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