

Need of preventive photocoagulation for retinal arterial macroaneurysm

Daisuke Nagasato¹, Takuji Iwawaki², and Hitoshi Tabuchi¹

¹Tsukazaki Hospital

²Iwawaki Eye Clinic

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Abstract

Retinal arterial macroaneurysm shows rapid vision loss when rupture occurs; therefore, preventive photocoagulation should be considered, if necessary.

Clinical Image

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Daisuke Nagasato^{1,2*}, Takuji Iwawaki³, Hitoshi Tabuchi^{1,2}

¹Department of Ophthalmology, Tsukazaki Hospital, Himeji, Japan

²Department of Technology and Design Thinking for Medicine, Hiroshima University Graduate School, Hiroshima, Japan

³Iwawaki Eye Clinic, Asago, Japan

Contributors

Daisuke Nagasato, MD, PhD, E-mail: d.nagasato@tsukazaki-eye.net

ORCID iD: 0000-0003-3956-9352

Takuji Iwawaki, MD, E-mail: hal99420@ybb.ne.jp

Hitoshi Tabuchi, MD, PhD, EMBA, E-mail: h.tabuchi@tsukazaki-eye.net

ORCID iD: 0000-0002-9098-0430

*Corresponding author

Daisuke Nagasato

68-1 Aboshi Waku, Himeji City, Hyogo Prefecture 671-1227, Japan

Tel: +81 79-272-8555; Fax: +81 79-272-8550

E-mail: d.nagasato@tsukazaki-eye.net

CONFLICT OF INTEREST

There are no conflicts of interest.

ETHICAL APPROVAL

The authors have no ethical conflicts to disclose.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

KEYWORDS

Photocoagulation; Retinal arterial macroaneurysm

KEY CLINICAL MESSAGE

Preventive photocoagulation for retinal arterial macroaneurysm might have prevented vitreous hemorrhage.

Abstract

Retinal arterial macroaneurysm shows rapid vision loss when rupture occurs; therefore, preventive photocoagulation should be considered, if necessary.

CASE DESCRIPTION

A 66-year-old female underwent an annual ophthalmologic examination by her family doctor. At her last visit, fundus examination revealed a retinal arterial microaneurysm (RAM) and mild retinal hemorrhage of the right eye on ultra-wide-field pseudo-color fundus images (Figure A). She had no visual symptoms; therefore, her family doctor ordered a follow-up visit. Five days later, she returned due to the feeling of a strong floater in her right eye. Vitreous hemorrhage associated with the RAM was observed (Figure B). Vitrectomy was performed for removing the vitreous hemorrhage, and a laser was applied to the RAM.

There are many treatments for RAM, but no standard treatment protocol has been established. Most RAMs have a benign course of thrombosis, fibrosis, and spontaneous resolution, and the vision returns to its previous state.¹ Therefore, RAM with no symptoms is generally followed up. When edema or exudates due to RAM cause vision loss, photocoagulation is usually considered.² Photocoagulation may be performed directly on macroaneurysms to facilitate involution.

Preventive photocoagulation for the RAM in the annual ophthalmologic examination might have prevented vitreous hemorrhage.

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AUTHOR CONTRIBUTIONS

Daisuke Nagasato, MD, PhD has managed the patient; written the manuscript; and critically reviewed the manuscript, references, and images. Takuji Iwawaki, MD managed the patient. Hitoshi Tabuchi, MD, PhD, EMBA has reviewed the manuscript.

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Figure

Ultra-wide-field pseudo-color fundus images of the patient's right eye. Retinal arterial microaneurysm (RAM) and mild retinal hemorrhage were revealed in superior-nasal retinal artery at an annual ophthalmologic examination (A, arrow). After five days, vitreous hemorrhage occurred from the RAM rupture (B).

