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RNAI-BASED TREATMENT FOR NEOVASCULAR AGE-RELATED MACULAR DEGENERATION BY SIRNA-027

Kaiser, Symons, Shah, and Co-Authors

ASSOCIATION OF RISK FACTORS FOR CHOROIDAL NEOVASCULARIZATION IN AGE-RELATED MACULAR DEGENERATION WITH DECREASED FOVEOLAR CHOROIDAL CIRCULATION

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THE PREVALENCE OF MACULAR TELANGIECTASIA TYPE 2 IN THE BEAVER DAM EYE STUDY Klein, Blodi, Meuer, and Co-Authors

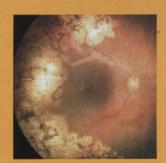
LASER PERIPHERAL IRIDOTOMY WITH AND WITHOUT IRIDOPLASTY FOR PRIMARY ANGLE-CLOSURE GLAUCOMA: 1-YEAR RESULTS OF A RANDOMIZED PILOT STUDY Sun, Liang, Wang, and Co-Authors

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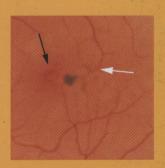
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SERIES ON EPIDEMIOLOGY

• 3 Cohort studies: design and pitfalls. Shu E Soh and Seang Mei Saw

ORIGINAL ARTICLES

• 6 Anterior segment complications after diode laser photocoagulation for prethreshold retinopathy of prematurity. Cristian M. Salgado, Yener Celik, and Deborah K. Vanderveen

This retrospective study evaluated anterior segment complication rates in eyes treated for prethreshold versus threshold retinopathy of prematurity and looked for potential risk factors. Baseline characteristics, treatment parameters, ocular complications, and structural outcomes after treatment were compared. More complications were found in the group of eyes treated at prethreshold. The only significant difference in variables was age at treatment, suggesting that younger postmenstrual age at laser treatment may be related to increased risk of anterior segment complications.

• 10 Risk factors for recurrent fibrovascular proliferation in aggressive posterior retinopathy of prematurity after early vitreous surgery. Tadashi Yokoi, Tae Yokoi, Yuri Kobayashi, Sachiko Nishina, and Noriyuki Azuma

To improve the visual outcome of eyes with aggressive posterior retinopathy of prematurity that underwent vitrec-

tomy with lensectomy because of retinal detachment, the risk factors for recurrent fibrovascular proliferation after surgery were analyzed. In 43 eyes, 8 eyes experienced recurrence. Statistical analysis revealed that the lack of photocoagulation posterior to the ridge may be the origin of the risk of recurrence.

• 16 Classification and misclassification of sensory monofixation in intermittent exotropia. Sarah R. Hatt, David A. Leske, Brian G. Mohney, Michael C. Brodsky, and Ionathan M. Holmes

Some intermittent exotropia patients have reduced stereoacuity and therefore are diagnosed with monofixation. This study reports monofixation prevalence and misclassification. Monofixation was defined as subnormal stereoacuity. In children with Preschool Randot, Frisby, Titmus test results from 1 examination, the monofixation rate was 36%, 55%, and 48%, respectively. In children with 2 sequential visits, the misclassification rate was 5%, 23%, and 13%, respectively. Classification of monofixation depends on stereotest. There is risk of misclassifying monofixation on a single assessment.

• 23 Ocular malformations or poor visual acuity in children born after in vitro fertilization in Sweden. Kristina Tornquist, Orvar Finnström, Bengt Källén, Anna Lindam, Emma Nilsson, Karl-Gösta Nygren, and Petra Otterblad Olausson

A follow-up of all children in Sweden born after in vitro fertilization did not reveal a significant increase in ocular malformations, but did reveal a statistically significantly increased risk for poor visual acuity. The individual risk



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for the latter is low, however, and may be an effect of parental subfertility. It is often associated with cerebral damage or optic nerve atrophy.

- 27 The significance of external limiting membrane status for visual acuity in age-related macular degeneration. Akio Oishi, Masayuki Hata, Masataka Shimozono, Michiko Mandai, Akihiro Nishida, and Yasuo Kurimoto Several parameters of spectral-domain optical coherence tomography findings were investigated in 158 eyes with age-related macular degeneration. The status of external limiting membrane showed the highest correlation with visual acuity and was considered to be useful for the assessment of photoreceptor integrity in age-related macular degeneration.
- 33 RNAi-based treatment for neovascular age-related macular degeneration by Sirna-027. Peter K. Kaiser, R. C. Andrew Symons, Syed Mahmood Shah, Edward J. Quinlan, Homayoun Tabandeh, Diana V. Do, Gail Reisen, Jennifer A. Lockridge, Brian Short, Roberto Guerciolini, and Quan Dong Nguyen, on behalf of the Sirna-027 Study Investigators Sirna-027, a small interfering RNA against vascular endothelial growth factor receptor 1 (VEGFR-1), demonstrated excellent safety in a phase 1 study of choroidal neovascularization resulting from neovascular age-related macular degeneration. There was clinically significant vision improvement (≥3 lines) at 1 or more study visits in 34.6% of patients; vision in all patients remained stable or improved through day 56. The biological activity demonstrated by Sirna-027 in this study suggests that VEGFR-1 may be a useful target to modulate angiogenesis; further evaluation is indicated.

• 40 Association of risk factors for choroidal neovascularization in age-related macular degeneration with decreased foveolar choroidal circulation. Wei Xu, Juan E. Grunwald, Tatyana I. Metelitsina, Joan C. Dupont, Gushuang Ying, E. Revell Martin, Joshua L. Dunaief, and Alexander J. Brucker

This study examined laser Doppler flowmetry measurements of the foveolar choroidal circulation in a group of 273 eyes with nonexudative age-related macular degeneration. The results showed that several risk factors for age-related macular degeneration progression, such as age, hypertension, hyperopia, and retinal pigment epithelium hypertrophy, were associated with decreased choroidal blood flow and volume, strongly suggesting that decreases in choroidal circulatory parameters may be involved in the development of age-related macular degeneration.

- 48 Efficacy of intravitreal bevacizumab combined with photodynamic therapy for polypoidal choroidal vasculopathy. Fumi Gomi, Miki Sawa, Taku Wakabayashi, Yuzuru Sasamoto, Mihoko Suzuki, and Motokazu Tsujikawa Comparison of outcomes after photodynamic therapy (PDT) monotherapy and combination PDT and intravitreal bevacizumab for eyes with polypoidal choroidal vasculopathy showed that the mean best-corrected visual acuity improved significantly more in the combined therapy group than in the monotherapy group over 1 year. The efficacy was apparent mainly at 3 months after the initial combined treatment. Combined bevacizumab did not affect lesion resolution and recurrence; however, it decreased the rate of development of PDT-related hemorrhages.
- 55 The prevalence of macular telangiectasia type 2 in the Beaver Dam eye study. Ronald Klein, Barbara A. Blodi, Stacy M. Mewer, Chelsea E. Myers, Emily Y. Chew, and Barbara E. K. Klein

The prevalence of macular telangiectasia type 2 found in persons 43 to 86 years of age in the Beaver Dam Eye Study