DESCRIPTION

The *American Journal of Ophthalmology* is a peer-reviewed, scientific publication that welcomes the submission of original, previously unpublished manuscripts directed to *ophthalmologists* and visual science specialists describing clinical investigations, clinical observations, and clinically relevant laboratory investigations. Published monthly since 1884, the full text of the *American Journal of Ophthalmology* and supplementary material are also presented online at [www.AJO.com](http://www.AJO.com) and on ScienceDirect.

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**Methods:** The first paragraph of the Methods section should describe all the specifics of the study design (see glossary of study designs below) and information about human informed consent or animal care. State whether the IRB approval was prospective (before the study began) or retrospective and indicate precisely what the IRB approved. Name of IRB that approved the research or provide a statement and rationale as to why the named IRB waived approval. Indicate proper informed
consent for the treatment and/or participation in the research, and confirm compliance with HIPAA, Clinical Trials registration (number and location of the registration), Investigational New Drug (IND) or Investigational Device Exemption (IDE) (provide number), and Institutional Animal Care and Use Committee guidelines. If the IRB waived the need for approval of this research or study, then indicate adherence to the Declaration of Helsinki and all federal or state laws in your country. Authors cannot make the decision as to whether IRB approval is needed; your IRB should make that decision and provide a waiver if they feel it does not require IRB approval.

Methods section should also include setting (multicenter, institutional, or clinical practice); patients and study population (including patient numbers, selection procedures, inclusion/exclusion criteria, randomization, and masking); intervention or observation procedure; and main outcome measure(s). Previously published procedures should be identified by reference only unless they are uncommon to AJO readers. Provide sufficient detail to enable others to duplicate the research. Use standard chemical or nonproprietary pharmaceutical nomenclature. Identify in parentheses specific sources by brand name, company, city, state, and/or country.

Results: Describe outcomes and measurements in an objective sequence with a minimum of discussion. Tables and figures should be cited in text in sequence. Data should be accompanied by confidence intervals (usually at the 95% interval) and exact $P$ values or other indications of statistical significance.

Discussion: Elucidate (but do not reiterate) the results, identify any statistically or clinically significant limitations or qualifications of the study, provide responses to other and contradictory literature, and state the conclusions that are directly supported by the data. Excessive generalization and undue speculation should be avoided. Give equal emphasis to positive and negative findings, state whether and what additional study is required, and conclude with the clinical applications or implications supported by the study. The conclusions should be incorporated into the end of the discussion.

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For further clarification, see "Conflict of interest in peer-review process and disclosure" in Author Information at AJO.com and the following open access articles:

**APPENDIX**

Appendixes should be used sparingly, but they are appropriate to provide survey forms, list the members of a study group, or complex formulas and information. Please note that Supplemental Material for the AJO website may be provided for Full-Length Articles and Perspectives at the time of acceptance.

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Highlights are optional yet highly encouraged for this journal, as they increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: **example Highlights**.

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Provide a structured abstract of 250 words or less with the following five headings:

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- Intervention or Observation Procedure(s)
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*Conclusions:* State the conclusions directly supported by the data and describe the clinical applications. Avoid over-generalizations. Give equal emphasis to positive and negative findings, and note specific additional study required.

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Restrict abbreviations to those that are widely used and understood by all ophthalmologists. Avoid abbreviations that have meaning only within the context of the specific manuscript. Introduce each abbreviation in parentheses after the first use of the full term in *each portion of the submission* including in the abstract, in the text, in the figures captions, and in the tables. *Système International units* and abbreviations of standard measurements, such as mm Hg, cm, and mL, are used without initial expansion. Avoid abbreviations in any titles, headings, or subheadings.

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It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

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Example. FIGURE 1. Patient 3 with staphylococcal corneal abscess. A. The patient's cornea is shown preoperatively with the abscess located superior to the visual axis, B. 3 days postoperatively with the corneal transplant well centered and clear, and C. 4 months postoperatively with a crystal clear cornea. D. The patient, 1 year postoperatively, shows smooth corneal surface with all sutures removed.

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The AJO recommends that researchers and authors (and commercial companies) adopt and adhere to the Pharmaceutical Research and Manufacturers (PhRMA) "Principles for the Conduct of Clinical Trials and Communication of Clinical Trial Results" listed at the http://www.phrma.org/sites/default/files/pdf/042009_clinical_trial_principles_final.pdf. These principles describe the relationship of PhRMA member companies with others involved in clinical research and set forth the rules companies have volunteered to follow in order to protect the safety of research participants wherever the companies conduct clinical trials. In the principles, the
PhRMA companies commit to the timely communication of all meaningful results of clinical trials, whether those results are positive or negative. The principles further state that the results should be communicated in an objective, accurate, balanced, and complete manner.

I. access

AJO ACCESS TO SCIENTIFIC DATA
Thorough peer review by the AJO may require that organizations that sponsor research provide access to data and analyses that are not provided in a submitted manuscript, and sometimes such access is needed after publication as well. The opportunity also exists to post this information on the AJO website as Supplemental Material in association with the published manuscript.

J. microb

REPORTING NEW MICROBIAL ORGANISMS IN OPHTHALMIC INFECTIONS
The AJO is interested in confirming that certain organisms participate in ocular disease. The text must provide adequate laboratory information that can substantiate the microbial identification. This requires that any unusual pathogen be confirmed by two different methods or at two independent laboratories. The journal Cornea initiated this confirmatory policy (Wilhelmus KR. New corneal infections: preventing a crisis of identity. Cornea 2003;22:95-96).

K. cancer

CANCER CLASSIFICATION SCHEME
Authors should use the American Joint Commission on Cancer classification scheme when describing patients with ophthalmic malignancies; see American Joint Committee on Cancer.ACC Cancer Staging Manual, Seventh Edition, Springer, New York.

L. ocular

OCULAR TRAUMA TERMINOLOGY

M. regis

CLINICAL TRIALS REGISTRATION
The AJO requires that human clinical trials are registered before enrollment in order for the results to be published in the AJO. See Arch Ophthalmol 2005:123:1263-1264 for complete statement. Phase III trials should be registered as well as many phase II trials. Most phase I trials do not need to be registered. The Methods section should contain a statement about where the registration information is available to the public. Satisfactory public databases include the National Institute of Health maintained site at http://www.clinicaltrials.gov (for either NIH or non-NIH sponsored studies) or the International Standard Randomized Controlled Trials at http://www.controlled-trials.com.

N. refractive surgery

STANDARDIZED GRAPHS AND TERMS FOR REFRACTIVE SURGERY RESULTS

Forms
A. flow CONSORT STATEMENT
B. idphoto CONSENT FORM FOR IDENTIFIABLE PHOTOGRAPHS

Glossary of study designs
Randomized Clinical Trial: A human trial involving at least one experimental treatment group and one control treatment group, concurrent enrollment, and follow-up of the experimental and control groups with assignment to experimental and control groups by a randomization process. Persons responsible for treatment and subjects are not able to influence the treatment assignment, and assignment remains unknown to the staff and subjects until eligibility has been determined.

Nonrandomized Clinical Trial: A human trial involving at least one experimental treatment group and one control group, concurrent enrollment, and follow-up of the treatment and control groups. Assignment to experimental control groups is by a process other than randomization.

Interventional Case Series: Three or more cases, which may or may not be consecutive, that describe the outcome of an intervention without a control group for comparison.
**Cohort Study:** A longitudinal observational study that includes subjects with identifying characteristics and involves measurements or observations on more than one occasion.

**Case-control Study:** An observational, and usually retrospective, study of subjects with identifying characteristics and a disease or abnormality (cases) for comparison to subjects with similar characteristics, but without the disease or abnormality (controls). Comparison proceeds from effect to cause and generally yields odds ratio (usually an approximation of relative risk).

**Cross-sectional Study:** An observational study that identifies subjects with and without the disease or abnormality being studied at the same time. Study yields prevalence data and may or may not be population based.

**Observational Case Series:** Three or more cases in which natural history of the disease or abnormality is described. Cases may be collected and studied retrospectively or prospectively over any time frame.

**Experimental Study:** Animal or laboratory research describing observations, surgical or medical interventions, testing, or devices. Experimental studies are generally prospective and utilize a protocol in which controls are included.

**Meta-analysis of Literature:** Analysis of literature using statistical methods to integrate and summarize several studies.

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