Are Disposable and Standard Gonioscopy Lenses Comparable?
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PURPOSE:
Gonioscopy is important in the evaluation and treatment of glaucoma. With increased scrutiny of acceptable sterilization processes for health care instruments, disposable gonioscopy lenses have recently been introduced. Single-time use lenses are theorized to decrease infection risk and eliminate the issue of wear and tear seen on standard, reusable lenses. However, patient care would be compromised if the quality of images produced by the disposable lens were inferior to those produced by the reusable lens. The purpose of this study was to compare the quality of images produced by disposable versus standard gonioscopy lenses.

MATERIAL AND METHODS:
A disposable single mirror lens (Sensor Medical Technology) and a standard Volk G-1 gonioscopy lens were used to image 21 volunteers who were prospectively recruited for the study. Images of the inferior and temporal angles of each subject's left eye were acquired using a slit-lamp camera through the disposable and standard gonioscopy lens. In total, 74 images were graded using the Spaeth gonioscopic system and for clarity and quality. Clarity was scored as 1 or 2 and defined as either (1) all structures perceived or (2) all structures not perceived. Quality was scored as 1, 2, or 3, and defined as (1) all angle landmarks clear and well focused, (2) some angle landmarks clear, others blurred, or (3) angle landmarks could not be ascertained. The 74 images were divided into images taken with the disposable single mirror lens and images taken with the standard Volk G-1 gonioscopy lens. The clarity and quality scores for each of these 2 image groups were averaged and P-values were calculated.

RESULTS:
Average quality of images produced with the standard lens was 1.46+/‐0.56 compared with 1.54+/‐0.61 for those produced with the disposable lens (P=0.55). Average clarity of images produced with the standard lens was 1.47+/‐0.51 compared with 1.49+/‐0.51 (P=0.90) with the disposable lens.

CONCLUSIONS:
We conclude that there is no significant difference in quality of images produced with standard versus disposable gonioscopy lenses. Disposable gonioscopy lenses may be an acceptable alternative to standard reusable lenses, especially in conditions where sterilization is difficult.