

March 2020

Long-Term Outcomes of Bleb Needling Following Primary Glaucoma Filtering Surgery in Primary Open Angle Glaucoma

Bryen Turco
gf7409@wayne.edu

Vaama Patel
Kresge Eye Institute, hb4001@wayne.edu

Chaesik Kim
Kresge Eye Institute, ckim@med.wayne.edu

Justin Tannir
Kresge Eye Institute, jtannir@med.wayne.edu

Lauren Keshishian
Kresge Eye Institute, lkeshish@med.wayne.edu

See next page for additional authors

Follow this and additional works at: https://digitalcommons.wayne.edu/som_srs

 Part of the [Eye Diseases Commons](#), and the [Ophthalmology Commons](#)

Recommended Citation

Turco, Bryen; Patel, Vaama; Kim, Chaesik; Tannir, Justin; Keshishian, Lauren; Goyal, Anju; Juzych, Mark; Hughes, Bret; and Ridha Al-Timimi, Faisal, "Long-Term Outcomes of Bleb Needling Following Primary Glaucoma Filtering Surgery in Primary Open Angle Glaucoma" (2020). *Medical Student Research Symposium*. 13.

https://digitalcommons.wayne.edu/som_srs/13

This Research Abstract is brought to you for free and open access by the School of Medicine at DigitalCommons@WayneState. It has been accepted for inclusion in Medical Student Research Symposium by an authorized administrator of DigitalCommons@WayneState.

Authors

Bryen Turco, Vaama Patel, Chaesik Kim, Justin Tannir, Lauren Keshishian, Anju Goyal, Mark Juzych, Bret Hughes, and Faisal Ridha Al-Timimi

Title: Long-Term Outcomes of Bleb Needling Following Primary Glaucoma Filtering Surgery in Primary Open Angle Glaucoma

Authors: Bryen Turco MASC, Vaama Patel MD, Chaesik Kim BSEE, Justin Tannir MD, Lauren Keshishian MD, Anju Goyal MD, Mark Juzych MD, Bret Hughes MD, Faisal Ridha Al-Timimi MD

Purpose: To determine the long-term success rate of bleb needling in a predominantly African American population and to identify factors associated with success.

Methods: We conducted a retrospective, observational clinical study in patients with primary open angle glaucoma. Patients who underwent a primary trabeculectomy, with or without an express shunt placement, and then subsequently had a bleb needling procedure were selected for this study. Patients were followed every three months for a period of two years. Failure criteria included achieving an intraocular pressure (IOP) of greater than 20 mmHg or greater than 80% of the pre-needling value on two subsequent visits, an increase in the number of prescribed medications relative to pre-needling quantity, and the occurrence of other complications. Kaplan-Meier survival curves were used to calculate bleb needling success rates and variables associated with failure were analyzed using multivariate Cox regression analysis.

Results: Seventy-four eyes from 71 patients were included in the study, with the majority of eyes from African Americans. The overall success rate at 12 months and two years was 28.1% and 14.3%, respectively. However, the complete success rate (completely weaned off of medications) was 12.7% and 5.1% at 12 months and 2 years, respectively. The most frequent reasons for failure included increased number of glaucoma medications (40%), surgical revision (31.7%), and IOP that exceeded threshold (21.7%).

Conclusions: The two-year bleb needling success rate reported in our study is lower than that reported in other studies, possibly due to the increased severity of glaucoma in our patient population.

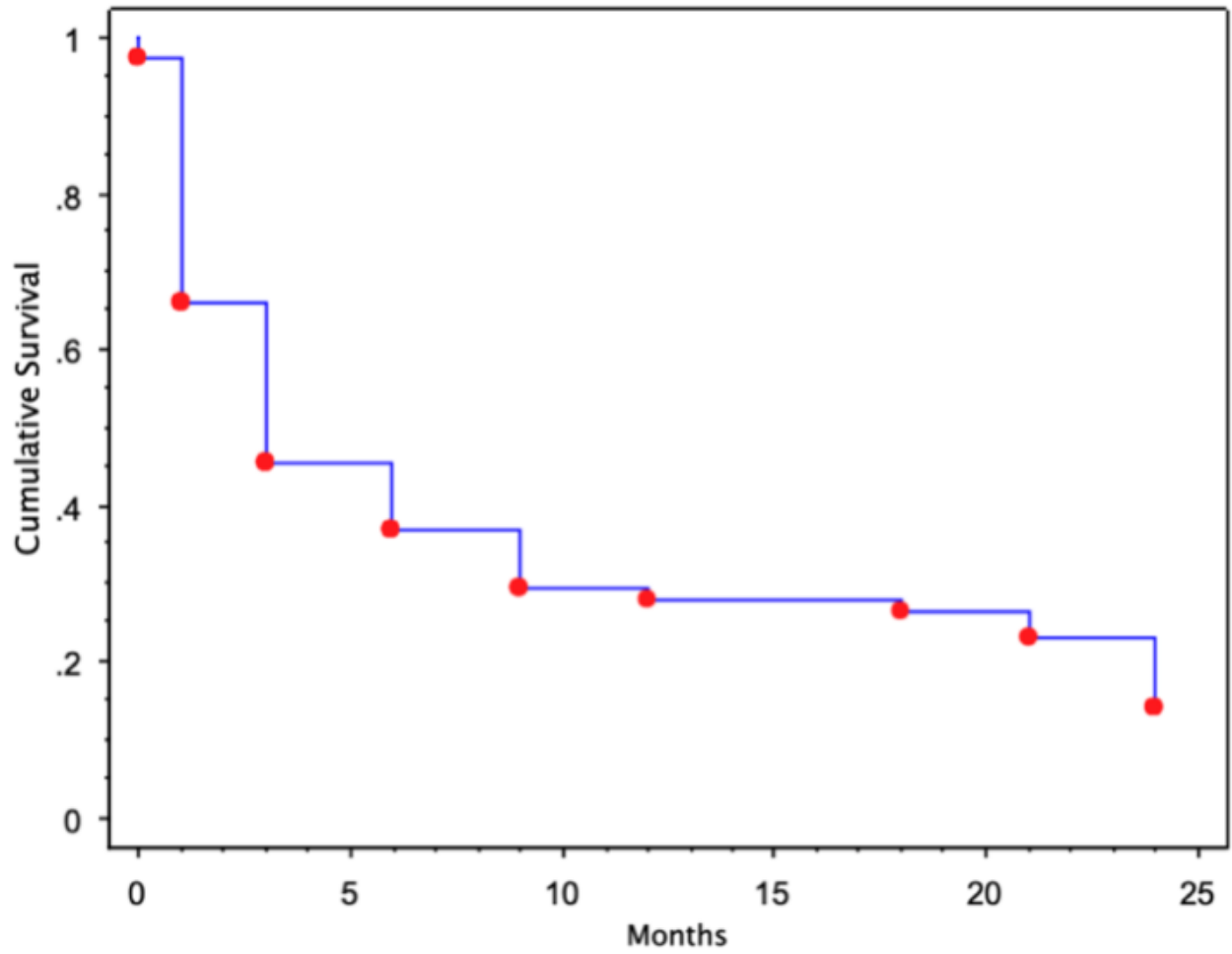


Figure 1. Kaplan-Meier survival curve for cumulative overall success.