

Micro Ocular Drainage for Glaucoma

Tim D. Johnson, M.D., Glaucoma Specialist, Eye Specialists of LA, Baton Rouge; Varshni Singh, Center for Advanced Microstructures and Devices, Louisiana State University, Baton Rouge, Louisiana

Abstract

Glaucoma is an elevated intra-ocular fluid pressure, leading to permanent, irreversible loss of vision. It is a not uncommon aging disease of the human eye, and is more common among affected relatives, accounting for 3 million blind in the U.S. Proven methods exist attempting to lower intra-ocular pressure, and thereby protect eyesight.

However, all surgical drainage options share a common point of failure: scar tissue grows into the drain, obstructing the aqueous humor outflow, leading to glaucoma drainage failure, and resumption of the progressive glaucomatous vision loss.

A better way to construct and implant a glaucoma micro drain via tube shunting of aqueous is being explored. The shunt carries aqueous from inside the globe to external reservoirs, such as the subconjunctival space in the orbit. New micro-tubing drainage ideas will be discussed.