IMPORTANT REMINDER

Medical Policies are developed to provide guidance for members and providers regarding coverage in accordance with contract terms. Benefit determinations are based in all cases on the applicable contract language. To the extent there may be any conflict between the Medical Policy and contract language, the contract language takes precedence.

PLEASE NOTE: Contracts exclude from coverage, among other things, services or procedures that are considered investigational or cosmetic. Providers may bill members for services or procedures that are considered investigational or cosmetic. Providers are encouraged to inform members before rendering such services that the members are likely to be financially responsible for the cost of these services.

DESCRIPTION

Glaucoma is a disease characterized by degeneration of the optic disc. Transciliary fistulization for the treatment of glaucoma is an approach to filtering surgery.

Background

Glaucoma

Glaucoma is a disease characterized by degeneration of the optic disc. Elevated intraocular pressure (IOP) has long been thought to be the primary etiology. However, the relationship between IOP and optic nerve damage varies among patients, suggesting a multifactorial origin.

For primary-open angle glaucoma (POAG) associated with elevated IOP, a decrease in aqueous outflow through the trabecular meshwork is believed to cause the increase in pressure. Many theories exist on what causes the decrease in aqueous outflow, such as foreign body obstruction, trabecular endothelial cell loss, reduced trabecular pore density, disturbances in neurofeedback mechanisms, or normal phagocytic activity, etc.
Standard POAG Treatments

Drug Therapy to Control IOP

Examples of drugs that may be prescribed include, but are not limited to, alpha-agonist, beta blockers, carbonic-anhydrase inhibitors, miotic agents and prostaglandin analogs.

Surgical Care

Laser Trabeculoplasty

A laser is used to burn small areas of the trabecular meshwork (where normal drainage of the eye occurs) to increase aqueous fluid outflow, thereby lowering IOP.

Incisional or Filtering Surgery (trabeculectomy or drainage implants)

Trabeculectomy (or glaucoma filtration procedure) involves a surgical removal of a portion of trabecular meshwork through a superficial flap of sclera. This lowers IOP by creating an alternate pathway for the aqueous fluid to flow from the anterior chamber to a bleb created in the subconjunctival space.

Drainage implant surgery involves a placement of the tube in the anterior chamber to shunt aqueous fluid to the subconjunctival space and lower IOP. Drainage implant surgery may be considered if trabeculectomy has failed or a patient is considered high risk for trabeculectomy.

Both trabeculectomy and drainage implant surgery often result in flat or collapsed anterior chambers and usually require that an iridectomy (placement of a hole in the iris) also be performed.

Cycloablation

This technique is also known as ablation of the ciliary body but is usually considered a last resort option due to the permanent destruction of the ciliary body.

Transciliary Fistulization (Transciliary Filtration, Singh Filtration)

Transciliary fistulization for the treatment of glaucoma is an approach to filtering surgery. A thermocauterization device called the Fugo Blade is used to create a plasma-ablated pore or filter track from the sclera through the ciliary body to allow aqueous fluid to ooze into the subconjunctival lymphatics from the posterior chamber (behind the iris) of the eye. Plasma ablation with the Fugo Blade allows the highly vascular ciliary body to be penetrated with little or no bleeding. Aqueous fluid drains from the posterior chamber of the eye (in contrast to conventional filtering surgeries in which aqueous fluid is filtered from the anterior chamber).

The Fugo Blade (Medisurg Ltd.) received the U.S. Food and Drug Administration (FDA) 510(k) approval in October 2004 for sclerostomy for the treatment of primary open-angle glaucoma where maximum tolerated medical therapy and trabeculoplasty have failed.
MEDICAL POLICY CRITERIA

Transciliary fistulization for the treatment of glaucoma is considered investigational.

SCIENTIFIC EVIDENCE

To reliably establish the safety and effectiveness of transciliary fistulization, the procedure should be compared to trabeculectomy (the current standard of care) in large, well-designed, well-executed, prospective randomized clinical trials.

Literature Appraisal

Randomized Controlled Trials

A literature search failed to identify any randomized controlled trials of transciliary fistulization for the treatment of glaucoma.

Nonrandomized Studies

Preliminary data concerning transciliary fistulization consists of two case series (n=147; n=10)\(^{[1,2]}\) and one non-randomized comparative study (n=36)\(^{[3]}\). However, these nonrandomized studies have limitations including a nonrandomized design, lack of appropriate comparator groups, small sample sizes, and short term follow-up timeframes. In addition, one of the studies had a significant loss to follow-up impacting the validity of the outcomes.

Clinical Practice Guidelines and Position Statements

There are no evidence-based clinical practice guidelines that recommend the use of transciliary fistulization for the treatment of glaucoma.

Summary

There is not enough research to establish if transciliary fistulization improves health outcomes more than other standard treatments for glaucoma. In addition, no clinical practice guidelines recommend transciliary fistulization for the treatment of glaucoma. Therefore, transciliary fistulization for the treatment of glaucoma is considered investigational.

REFERENCES


**CROSS REFERENCES**

None

<table>
<thead>
<tr>
<th>CODES</th>
<th>NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td>66999</td>
<td>Unlisted procedure, anterior segment of eye</td>
</tr>
<tr>
<td></td>
<td>0123T</td>
<td>Fistulization of sclera for glaucoma, through ciliary body (Deleted 1/1/2016)</td>
</tr>
<tr>
<td>HCPCS</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>