TRANSPUPILLARY THERMOTHERAPY FOR TREATMENT OF CHOROIDAL NEOVASCULARIZATION ASSOCIATED WITH AGE-RELATED MACULAR DEGENERATION
OTH 903.016
POSTED DATE: 8/22/2003
EFFECTIVE DATE: 12/1/2003

COVERAGE:

Transpupillary thermotherapy is considered experimental or investigational as a treatment of choroidal neovascularization associated with age-related macular degeneration.

DESCRIPTION:

Choroidal neovascularization (CNV) is a common cause of adult-onset blindness, most commonly associated with age-related macular degeneration (ARMD). While laser photocoagulation has been used to treat CNV, patients with subfoveal lesions are generally not candidates for this treatment due to the risk of an immediate reduction in central vision, outweighing any treatment advantage. Recently photodynamic therapy has been used with success in treating subfoveal CNV. The treatment has shown the greatest success in treating patients with classic CNV (as opposed to occult CNV), as defined angiographically. There is ongoing research interest in the use of transpupillary thermotherapy to treat subfoveal choroidal neovascularization with an “occult” angiographic pattern.

Transpupillary thermotherapy (TTT) is a technique in which heat is delivered to the choroid and retinal pigment epithelium through the pupil using a modified diode laser. This laser technique contrasts with the laser used in standard photocoagulation therapy in that TTT uses a lower power laser for more prolonged periods of time and is designed to gently heat the choroidal lesion, thus limiting damage to the overlying retinal pigment epithelium. While photodynamic therapy as a treatment of CNV also involves the use of a laser, in this application, the laser is a nonthermal laser designed to activate Verteporfin, the photosensitizing agent.

RATIONALE:

There is minimal published data TTT. Reichel and colleagues reported on a case series of 16 eyes in 15 patients who presented with occult subfoveal choroidal neovascularization secondary to age-related macular degeneration. Three eyes showed a two or more line improvement in visual acuity over a period of 6 to 25 months. Visual acuity remained stable in nine treated eyes. The remaining four eyes showed a decline in visual acuity.

Newson and colleagues reported on a case series of 44 eyes in 42 patients consisting of 12 eyes with classic CNV and 32 eyes with occult CNV. The mean follow up was 6 months. The mean change in vision in those with classic and occult CNV was -0.75 and -0.66 Snellen
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Further data are needed to confirm these preliminary results. The TTT4CNV Study is a nationwide study involving 22 centers that was started in March 2000. A total of 336 patients with symptomatic occult CNV that shows signs of exudation are being recruited. Two-thirds of eyes will be treated and one-third will receive sham treatment. Patients will be followed for up to 2 years.

PRICING:

None

REFERENCES:


DISCLAIMER:

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, takes precedence over Medical Policy and must be considered first in determining coverage. The member’s contract benefits in effect on the date that services are rendered must be used. Any benefits are subject to the payment of premiums for the date on which services are rendered. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

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