QUESTION: What is the Implantable Miniature Telescope™ (by Dr. Isaac Lipshitz)?

ANSWER: This medical device is an intraocular telescope designed to help those with end-stage, age-related macular degeneration (AMD). When surgically implanted in one eye after removal of the natural lens, it provides an image on the retina that is magnified more than two times. The contra-lateral eye continues to provide peripheral vision and is not implanted with an intraocular telescope.

QUESTION: What are the indications for the intraocular telescope?

ANSWER: As approved by the FDA on July 6, 2010, the device is indicated for patients with stable end-stage AMD with bilateral loss of central vision and visually significant cataract. Patients must also meet age, vision, and corneal health requirements described in the product labeling. Prior to implantation, beyond retina and cornea assessments, patients also agree to undergo evaluation by a low vision specialist(s).

QUESTION: What are the contraindications for use?

ANSWER: Contraindications include, but are not limited to:
- Unstable retinal disease
- Stargardt's macular dystrophy
- Inadequate peripheral vision in the fellow eye
- Previous intraocular or corneal surgery
- Corneal guttata and/or endothelial dystrophy
- Endothelial cell density <2300 for patients age 65-69, <2000 cells/mm² for patients age 70-74, and <1800 cells/mm² for age 75+

QUESTION: How is the intraocular telescope different from other low vision treatments?

ANSWER: The intraocular telescope contains micro-optics and is implanted within the capsular bag. The device is used with natural eye movements to scan the environment in both static and dynamic situations for near and distance activities. Hand-held or head-mounted magnifiers are common low vision aids. These external devices generally require the patient to hold them, have them mounted on spectacles, or use a closed-circuit TV-type system with close working distances. Use of the telescope implant does not preclude the synergistic use of magnification devices if needed.

QUESTION: Who determines eligibility for the intraocular telescope?

ANSWER: Generally, the initial evaluation of suitability is made by a retinal specialist. Then, a low vision specialist evaluates the patient. Lastly, a cornea specialist evaluates the patient's anterior segment for implantation of the intraocular telescope.

QUESTION: What diagnostic tests might apply?

ANSWER: A retina specialist would likely use SCODI-retina and angiography to assess AMD. A low vision specialist would likely use perimetry and refraction to evaluate the patient. A cornea specialist would likely use specular microscopy and A-scan or optical coherence biometry prior to implantation. There may be additional tests in special cases.

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