Macular Degeneration is one of the leading causes of blindness in the elderly today. Age-related Macular Degeneration (AMD) is caused by deposits, called drusen, that are carried by blood vessels to the retina. The deposits collect on the macula causing a blind spot in the central vision. This creates problems, and makes it very difficult for the elderly with this disease to do simple day-to-day tasks. Doctors have worked on coming up with a solution to this problem, and have created a telescopic eye implant to help better peoples vision that suffer from macular degeneration.

The telescopic lens is only 3.6mm diameter and 4.4mm in length. During the procedure it is implanted into the eye, replacing the lens. Through the new implanted lens vision magnified. Taking the place of the macula and the area of the retina where the peripheral sight comes from. Making the blind spot seem smaller. The implant is only done in one eye, so the other eye is used for peripheral vision. The implant has three different main components in itself. It has a quartz glass capsule, which has the wide-angle lens inside of it. It also has a clear carrier, and a light restrictor.

Telescopic Implants

I. INTRODUCTION

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II. METHODS

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III. RESULTS

Visioncare Inc., a company based out of California, created the implant. They also ran several clinical trials on it. In one of the >200 person trails around 70% found improvement in their vision. Even with the large improvement in vision there are still side effects. Some saw cornea swelling, and one out of every twenty-five needed a cornea implant because of damage that was caused by the implant. Many patients also have to go through extensive therapy in order to be able to use the implant correctly.

IV. DISCUSSION

Some say that the implant may not be worth it due to the side affects and the work that is needed in order to have proper vision. Others see it as a chance to be able to see the world with whatever time they have left. This implant has proven to be a great leap forward in curing another type of blindness, but there still seems to be room for improvement. In the future I would hope to see an implant that totally fixes the central vision to that you could implant both eyes and have peripheral vision. So there would be no training needed in order to have the proper vision.

REFERENCES


