

## Abstract 41

### IMT-SAMSARA IMPLANT: FROM SCREENING TO REHABILITATION OUR PRELIMINARY EXPERIENCE

Oral

Sasso P.\*, Savastano A., Francione G., Sammarco L., Ferrara S., Gambino G., De Vico U., Caporossi T., Minnella A.M., Rizzo S.

*Policlinico Gemelli ~ Rome ~ Italy*

#### **Purpose:**

SING (Smaller-Incision New-16 Generation) implantable miniature telescope (IMT), is the first approved surgical treatment for visually impaired people due to end-stage age-related macular degeneration (AMD).

We reported our preliminary results in 11 real-world IMT implanted patients with the commercial device (6months follow-up data), defining screening, surgical techniques and rehabilitation approach.

#### **Methods:**

30 AMD patients with bilateral central vision loss (17 M, 13 F) were evaluated to be included for the implant. Inclusion criteria are patients with cataract and bilateral geographic atrophy or disciform scar,  $\geq 55$  age, good peripheral vision, BCVA, 0.6-1.6 LogMar, bilaterally, 5 letters gain with the telescope, CA  $\geq 2.5$  mm.

Surgery was performed in 11 subjects and rehabilitation protocol training was applied by measuring best corrected visual acuity, BCVA, reading acuity, RA, fixation stability, and reading speed, OCT, endothelial biomicroscopy. Moreover a series of customizable exercises were performed at the hospital and at home monocularly and binocularly.

#### **Results:**

At 6-months of follow-up BCVA improved from 0.875 LogMar to 0.625. Reading acuity was 0.4 LogMar in all patients. Reading speed improved of 51.7% after training. Mean accuracy, reaction time and fixation stability were significantly better after training. No patient developed complications as endophthalmitis or persistent inflammation. Only one patient had transient inflammation reduced with topic therapy.

#### **Conclusions:**

AMD patients receiving SING-IMT implant surgery and rehabilitation intervention showed an improvement of visual functions on real-word task. Our experience with the IMT in the real-world setting provides evidence of the effectiveness of multidisciplinary approach for visually impaired subjects from precise surgical technique, careful patient selection and postoperative rehabilitation.

