

## Abstract 123

### DIFFERENCES IN LONG-TERM PROGRESSION OF ATROPHY BETWEEN NEOVASCULAR AND NONNEOVASCULAR AGE-RELATED MACULAR DEGENERATION

Oral

Airaldi M.<sup>[1]</sup>, Corvi F.<sup>[1]</sup>, Cozzi M.<sup>[1]</sup>, Muneeswar G.N.<sup>[2]</sup>, Staurenghi G.<sup>[1]</sup>, Srinivas R.S.<sup>[2]</sup>

<sup>[1]</sup>Eye Clinic, Department of Biomedical and Clinical Science "Luigi Sacco" Sacco Hospital, University of Milan ~ Milan ~ Italy, <sup>[2]</sup>Doheny Eye Institute, University of California at Los Angeles ~ Los Angeles, CA ~ United States of America

#### **Purpose:**

To compare the enlargement rates of geographic atrophy (GA) over 5 years of follow-up with those of macular atrophy (MA) associated with macular neovascularization (MNV).

#### **Methods:**

Retrospective, longitudinal, comparative and consecutive case series of patients with age-related macular degeneration and GA (dry) or with MA and MNV. Atrophic regions detected on serial registered fundus autofluorescence images were semiautomatically delineated, and the measurements of these areas were recorded every  $6 \pm 3$  months for the first 2 years of follow-up and at yearly intervals for up to 5 years. Main outcome measures were the annual raw and square root-transformed rates of atrophy growth.

#### **Results:**

117 eyes of 95 patients (61 in the GA and 56 in the MA cohort); 100% and 38.5% completed 2 and 5 years of follow-up. Baseline size was similar between the 2 groups (raw: 1.74 vs. 1.53 mm<sup>2</sup>, P = 0.56; sqrt: 1.17 vs. 1.02 mm, P = 0.26). Enlargement rates were greater for the GA cohort (raw: 1.72 vs. 1.32 mm<sup>2</sup>/year, P = 0.002; sqrt: 0.41 vs. 0.33 mm/year, P = 0.03), and so was the area of atrophy growth at 5 years (raw: +8.06 vs. +4.55 mm<sup>2</sup>, P = 0.001; sqrt: +1.93 vs. +1.38 mm, P = 0.02).

#### **Conclusions:**

The presence of MNV was associated with a slower rate of expansion, resulting in overall smaller areas of atrophy over time. These findings support the hypothesis that MNV may protect against the progression of atrophy.

