

## Abstract 4

### SHORT-TERM MORPHO-FUNCTIONAL CHANGES IN PREVIOUSLY TREATED NEOVASCULAR AMD EYES SWITCHED TO BROLUCIZUMAB

Oral

Viggiano P.<sup>[1]</sup>, Grassi M.O.<sup>[1]</sup>, Boscia G.<sup>[2]</sup>, Borrelli E.<sup>[3]</sup>, Pignataro M.G.<sup>[1]</sup>, Petruzzella G.<sup>[1]</sup>, Alessio G.<sup>[1]</sup>, Boscia F.<sup>[1]</sup>

<sup>[1]</sup>university of Bari ~ Bari ~ Italy, <sup>[2]</sup>university of Turin ~ Turin ~ Italy, <sup>[3]</sup>university of milan, san raffaele Hospital ~ milan ~ Italy

#### **Purpose:**

To explore the morpho-functional fluctuations in eyes treated for nAMD when switched from aflibercept or ranibizumab to brolucizumab.

#### **Methods:**

31 eyes of 31 patients with nAMD with type 1 MNV were included. All patients were imaged using the SD-OCT. The OCT acquisition was performed at the following visits: (i) T1 visit corresponding to the last follow-up examination in which an intravitreal injection of aflibercept or ranibizumab was performed before switching to brolucizumab because of the lack of improvement, (ii) T2 visit corresponding to the examination performed 1 month after T1, the latter visit corresponding to the day when a switch to brolucizumab injection was performed, (iii) and 1 month after the latter injection (T3). The main outcome measures were: (1) Central macular thickness, (2) choroidal vascularity index (CVI) and, (3) subfoveal choroidal thickness.

#### **Results:**

CMT analysis showed fluctuations at 3 times. In detail, T2 displayed a thicker CMT in comparison to T1, although not statistically significant ( $p = 0.12$ ). Contrariwise, T3 showed a thinner CMT in comparison to T2 ( $p = 0.002$ ). Analyzing CVI among the three different times, the LCA and TCA showed significantly different values before and after switching to brolucizumab. T2 showed a significant reduction in both vessel lumen and total area compared to T1 ( $p = 0.032$  and  $p = 0.046$ , respectively). Moreover, T3 showed a greater value of both LCA and TCA in comparison to T2 ( $p = 0.008$  and  $p = 0.01$ , respectively). CT did not show significant differences at each time ( $P > 0.05$ ).

#### **Conclusions:**

Our results reported early experiences on morpho-functional fluctuations in patients with nAMD switched to brolucizumab. The anatomical impact of brolucizumab administration appears to result in more effective resolution of SRF and IRF, in association with choroidal vascular enlargement.