

Supplementary File

Analysis of the impact of peripheral islands in the VF-groups

The choice of VF without peripheral islands was made in order to homogenize the VF-groups. To visualize the impact of peripheral islands, wherever they are, we performed additional analyses.. We can consider that the majority of patients in VF1 and VF3 groups have no peripheral islands. Indeed, for the group VF1 with tunnel vision, in the vast majority of cases, patients have lost their peripheral islands with advancement of the disease. In VF3 group, the large diameter of the VF ensures that patients often do not have peripheral islands dug in their VF. We focused on the analysis of VF2 group by identifying a population of 15 RP patients with the criteria of VF2 group ($20^{\circ} \leq \text{VF diameter} \leq 40^{\circ}$) but having peripheral islands: the “VF2 +islands” group. Scores of this group compared to VF-groups were reported in table 6. While the median of ‘VF2+islands’ group is between the groups VF2 and VF3, it appears that its distribution is very spread out (figure 8).

To compare variables (Composite Score, Anxiety and Depression Score) between RP VF-groups and ‘VF2+islands’ group a Kruskal-Wallis test was performed ; in case of significant differences, Mann-Whitney test was used to compare groups two by two. Statistical tests were carried out with significant level of alpha risk set at 5%.

By comparing the CS between RP VF-groups and VF2+islands group, it was found a statistically significant difference ($p = 0.00042$). Comparison between groups two by two revealed a significant difference between groups VF2+islands and VF1 ($p = 0.039$) finding the gap with the most affected group. Regarding the Anxiety and Depression scores, no significant difference was found between groups. These results are encouraging for generalizing the visual field threshold found in our study but it would be interesting to extend the study with three groups similar to VF-groups but including peripheral islands.

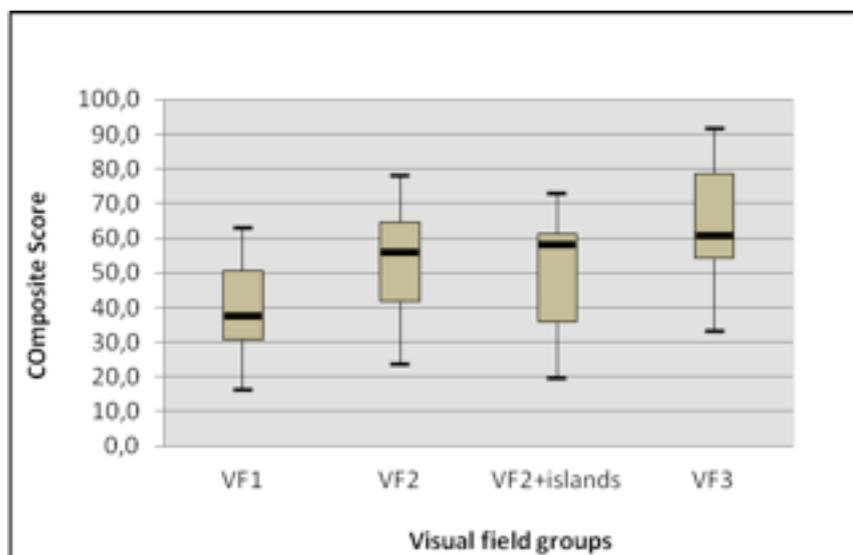


Figure 8. Distribution of Composite score in the VF-groups and the “VF2+islands” group with VF2 criteria and peripheral islands.

Legend : groups: VF1: \emptyset VF<20, VF2: $20^{\circ} \leq \emptyset$ VF $\leq 40^{\circ}$, VF2+islands: $20^{\circ} \leq \emptyset$ VF $\leq 40^{\circ}$ with peripheral islands ; VF3: \emptyset VF>40°.

Boxplot: the line in the plot is the median, which is surrounded by a box the top and bottom of which is the interquartile range (the limits within which the middle 50% of observations fall). The distance between the extreme values and box plot represent 25% higher values and 25% lower values.

Table 1 : Scores of the 3 RP VF-groups and “VF2-islands” group with VF2 criteria and peripheral islands.

Scores	VF1 (n=20)	VF2 (n = 20)	VF2+islands (n = 15)	VF3 (n = 20)
Composite Score	37.7 [19.7]	55.9 [22.6]	58.2 [25.2]	60.8 [24.4]
Anxiety	10.0 [3.5]	9.5 [6.3]	10.0 [4.5]	9.0 [4.3]
Depression	7.0 [7.0]	4.5 [6.3]	5.0 [7.0]	4.0 [5.5]

Legend: RP = Retinitis Pigmentosa; VF = Visual Field; n = number of patients; groups: VF1: \emptyset VF<20, VF2: $20^{\circ} \leq \emptyset$ VF $\leq 40^{\circ}$, VF2+islands: $20^{\circ} \leq \emptyset$ VF $\leq 40^{\circ}$ with peripheral islands ; VF3: \emptyset VF>40°. Values are presented as median [Interquartile Range].