THE CHARLES–BONNET SYNDROME IN PATIENTS WITH WET-AGE RELATED MACULAR DEGENERATION – COULD ORAL PROTON PUMP INHIBITORS PLAY A ROLE?

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Introduction: The occurrence of visual hallucinations in psychologically healthy people – the Charles Bonnet Syndrome – is often associated with visual loss. We investigated the role of oral proton pump inhibitors (PPIs) use and other potential risk factors in a population of neovascular age-related macular degeneration (AMD) patients.

Methods: Five hundred consecutive patients with neovascular-AMD followed at a single tertiary center in Portugal were screened for CBS. Psychiatrically healthy individuals where systematically asked if they had previously experienced hallucinations, patients that fit the selection criteria were included in the CBS group and those who did not fit the criteria were included in the non-CBS group.

Demographic data, current medication and ocular risk factors were collected from patient charts and compared between CBS and non-CBS groups.

Results: The prevalence of CBS was found to be 9.0% (45/500). Hallucinating participants were predominantly female (75.6%, p<0.001), with a mean age of 83.69 ± 6.06 years (p<0.001), 60% had bilateral neovascular-AMD (p=0.016) and the mean time of follow-up was 57.91 ± 29.12 months (p=0.026). In this group, the median ETDRS visual acuity of the better eye was 55 (5 to 82) letters (p<0.001) and 40% percent (18/45) (p= 0.002) used PPIs.

When evaluated in a binary logistic regression model, correlations were found between older age (p=0.002), longer follow-up time (p=0.043), PPI use (p=0.019), poor visual acuity (p=0.014) and the development of CBS. The increased risk for visual hallucinations caused by PPIs was independent of visual acuity (p=0.377). For this model, the area under the curve was 0.765.

Conclusion: The prevalence of CBS in neovascular-AMD patients is high and mainly affects older individuals with poor visual acuity. PPIs seem to increase the risk of development of hallucinations independently of the degree of visual loss.