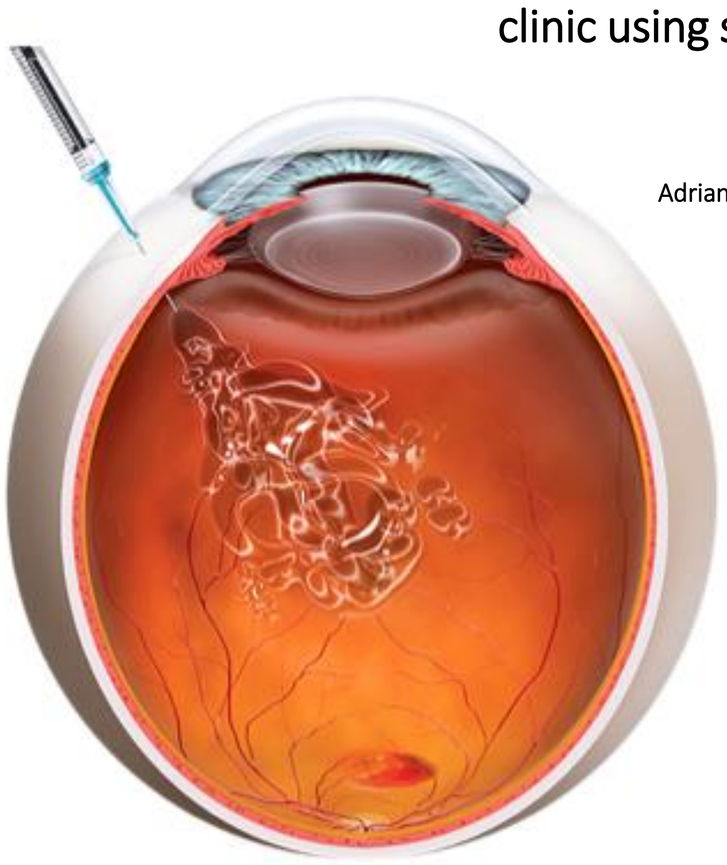
Implementation of ICHOM recommendations for measuring quality of life among patients with macular degeneration in a Bulgarian ophthalmology clinic using standardized questionnaires EQ-5D-5L/VAS and Impact of Vision Impairment



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Objectives:

Age-related macular degeneration (AMD) is a leading cause of blindness among people over 65 in developed countries. AMD is a progressive, vision-impairing disease that significantly impairs patients' quality of life (QoL), leading to inability to perform daily duties. Early and accurate diagnosis of AMD and initiation of adequate and consistent treatment can preserve the quality of life of patients with this disease for a long time.

Methods:

The International Consortium for Health Outcomes Measurement (ICHOM) Set of Patient-Centered Outcome Measures for Macular Degeneration was used. For the period March-August 2021 all patients diagnosed with AMD, who underwent an intravitreal injection procedure with VEGF-inhibitors in a Bulgarian ophthalmic clinic were interviewed. They were assisted in completing two standardized questionnaires assessing QoL: EQ-5D-5L, containing five domains together with a visual analogue scale (VAS) and an Impact of Vision Impairment (IVI) Questionnaire recommended by ICHOM. The questionnaire contains 32 questions, with the help of which the level of limitation of daily activities in patients, as a result of visual impairment, is determined. In order to ensure the anonymity of patients completing the standardized questionnaires, a corresponding 7-character code was generated for each patient. Microsoft Excel and IBM SPSS Statistics Version 23 statistical software were used for data analysis. All patients were assisted in completing the questionnaires in order to collect the complete set of information.

Results are summarized as mean (±SD) by age group and overall. For the EQ-5D, the results were compared with population norms in Bulgaria. Student's unpaired t-test and Chi-Square test were performed to assess differences between individual demographic groups (men and women with macular degeneration), as well as between macular degeneration patients and the general population

Results:

65 people took part in the survey. Due to missing data in some of the questionnaires, only completed questionnaires with a complete set of information (or a total of 60 questionnaires) were used for the purposes of this analysis. The mean EQ-5D score for the entire patient group was 0.862, the mean VAS score - 0.862, and the mean IVI score - 2.4. Results show that QoL related to health, measured by EQ-5D-5L/VAS and IVI questionnaires, deteriorates with age. For the IVI score, this is demonstrated by increasing values with advancing age, and for the EQ-5D score and VAS, by decreasing values. A comparison of EQ-5D data with population norms in Bulgaria (i.e. for a representative sample of the general population) shows that patients with impaired vision have a reduced QoL. When analyzing the data for the three indicators by gender, the results showed that the quality of life was worse for women, although the differences were not statistically significant. The EQ-5D score and EQ-VAS/100 values were lower in women than in men (0.838 vs. 0.879 and 0.60 vs. 0.66, respectively), and the IVI score increased (2.43 vs. 2.24) ($p \geq 0.05$ for all three indicators).

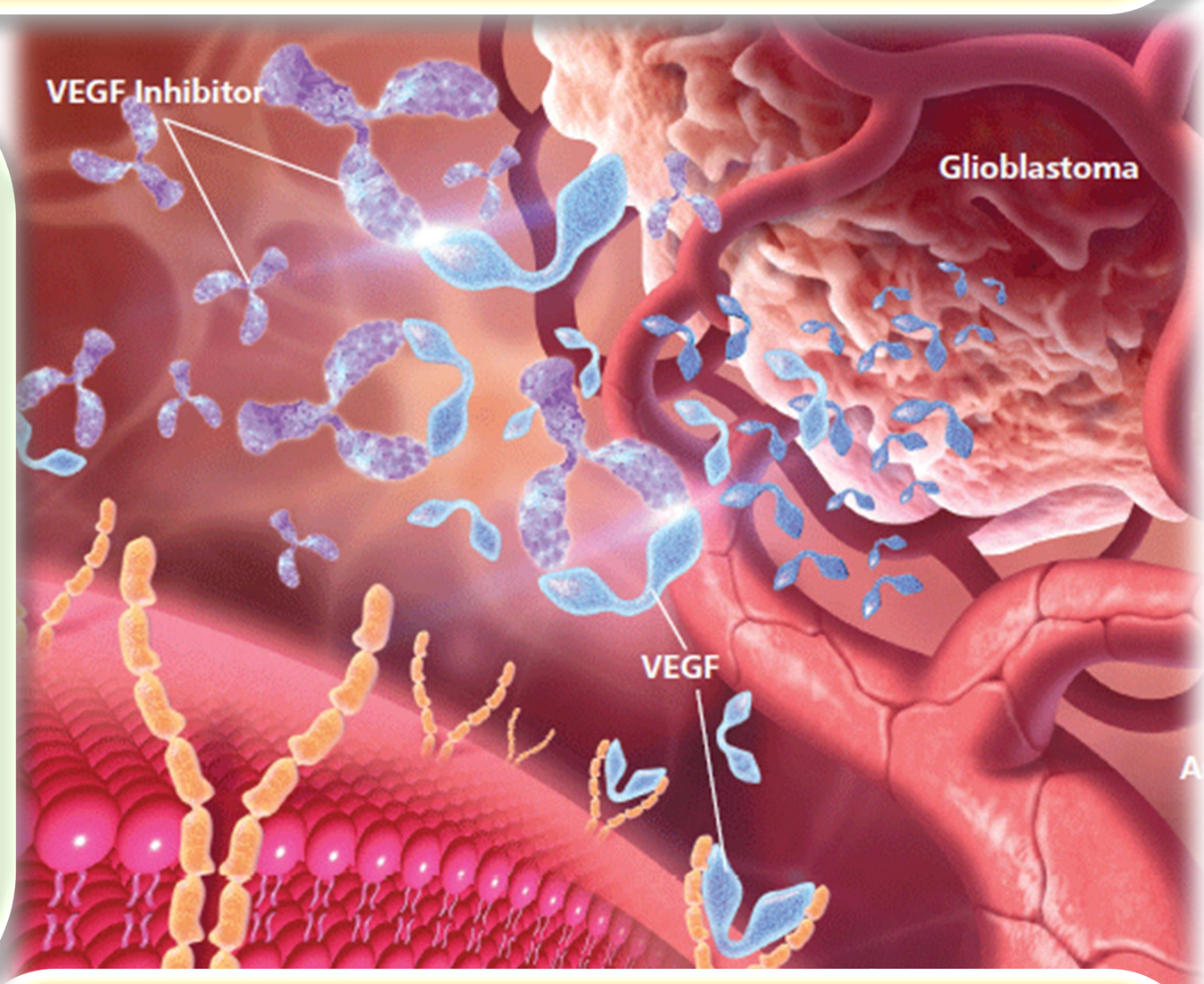

Table 1 Results in patients with macular degeneration - total for the entire patient group and by age group (EQ-5D index, VAS and IVI score)

		EQ-5D index (SD)	VAS score (SD)	IVI score (SD)
Total	n=60	0,862 (0,16)	0,62 (0,23)	2,4 (1,03)
18-24 y	1	1,000	0,90	0,60
25-34 y	3	0,977 (0,03)	0,78 (0,16)	2,11 (1,19)
35-44 y	2	0,991 (0,01)	0,75 (0,07)	2,72 (1,22)
45-54 y	1	1,000	0,85	0,27
55-64 y	4	0,941 (0,05)	0,61 (0,31)	1,89 (0,79)
65-74 y	27	0,904 (0,13)	0,65 (0,21)	2,34 (0,90)
≥75 y	22	0,755 (0,17)	0,52 (0,23)	2,76 (1,05)

Conclusion:

The results of the study, conducted for the first time in Bulgaria, evaluating the quality of life in patients with macular degeneration, show that the QoL in patients with AMD deteriorates compared to population norms, which demonstrates the seriousness of the disease. The QoL associated with health in patients with AMD deteriorates with age. Careful monitoring of their condition and periodic assessment of their QoL is needed in order to take into account the effect of the treatment along with an aadditional research is needed in order to track the dynamics of the results over time.

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