Comparison of quality of life in different degrees of glaucoma patients and normal subjects

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Introduction: Glaucoma is the leading cause of irreversible blindness worldwide. The main goal of glaucoma treatment is to maintain the patient’s quality of life (QoL), which includes preservation of visual function, as a reasonable cost. Ocular surface disease (OSD) affects up to 59% of patients with glaucoma. Quality of life is altered in glaucoma patients and should be considered in their management. Global quality of life questionnaires and those relates to ocular symptoms secondary to treatment may add useful information.

Purpose: Our purpose is to assess the quality of life in glaucoma patients and to investigate the influence of the degree of the disease on QoL and the relationship between ocular surface disease and glaucoma-related QoL.

Methods: One hundred and ten subjects were included in this cross-sectional study. All received a complete ophthalmic examination including refraction, anterior and posterior segment assessment, nerve fiber layer measurements with SD-OCT and 24-2 SITA standard Humphrey visual fields. Participants gave informed consent and performed 3 different QoL questionnaires: 1) the Euroqol EQ5D (global QoL); 2) the Visual Function Questionnaire 25 (VFQ25, related to visual function); and 3) the Ocular Surface Index (OSDI, QoL related to ocular signs and symptoms of surface disease). OSDI varies from 0 (no symptoms or signs) to 100, with higher scores representing greater disability. Sixteen were normal subjects with normal fields, discs and OCT. Ninety four were glaucoma patients with intraocular pressure over 21 mmHg, abnormal fields, abnormal OCT and glaucomatous discs. The degree of glaucoma was classified according to the visual field mean defect (MD): early (>-6 dB); moderate (-6.1 to -15 dB) and advanced (< -15 dB).

Results: The global scale of EQ5D was very similar in normal subjects (70.6 ± 13.2) than in early glaucoma (71.0 ± 19.0), moderate glaucoma (71.5 ±15.6) and advanced glaucoma (67.8 ± 21.6) (Fig. 1). But EQ5D identified significant differences in particular aspects of QoL (Fisher’s exact test, p <0.05): mobility was more restricted (Fig. 2), patients had more difficulties for everyday care and activities, pain was more present and anxiety was more frequent (Fig. 3) among glaucoma patients than in normal subjects.

OSDI tended to be greater in early (51.3 ± 28.1) and moderate glaucomas (52.4 ± 33.2) than in normal subjects (38.5 ± 35.0) (Fig. 4). VFQ25 identified significant differences in particular aspects of QoL (One-way ANOVA with Tukey’s multiple comparison correction, p < 0.05): difficulty with near and distance vision activities was more frequent in glaucoma patients than in normal subjects (Fig. 5). Ocular pain and role limitations due to vision tend to be more frequent in patients with glaucoma than in normal subjects (Fig. 6) (p = 0.052, p = 0.057, respectively).

Conclusions: According to our results, glaucoma patients have more difficulty walking, in daily activities and have more pain and anxiety. Difficulty with near and distance vision activities and ocular pain are also more common in glaucoma patients. OSI is more frequent in early and moderate glaucomas. Patients with glaucoma have worst global QoL according to EQ5D and worst visual function related QoL (VFQ25 questionnaires) than normal subjects.

References: