Glaucoma and patient adherence - the importance of doctor-patient communication in affecting patients' outcomes in a greek NHS glaucoma unit

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ABSTRACT

Early diagnosis and treatment of glaucoma has been found clinically beneficial and cost effective as it significantly delays visual field deterioration. Adherence to glaucoma pharmacotherapy is associated with patient-related, medication-related, physician-related and environmental factors and non-adherence can be both intentional and unintentional. Our purpose was to determine the major causes of nonadherence to medication in patients with open angle glaucoma and to emphasize the importance of doctor-patient communication in enhancing the patients' faith in treatment effectiveness. Patients are driven to nonadherence by an imbalance between their perceived need for medication and their concerns about taking it. Patient-centered communication techniques can engage the patient in shared decision making about medication, thereby redefining the good patient as someone who works with his or her health care provider to address adherence barriers.

Key words: Glaucoma patients, adherence, questionnaire, doctor-patient communication.

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Introduction

Glaucomas represent a diverse group of diseases which manifest with common characteristic changes in the optic nerve neuroretinal rim tissue, thus resulting in vision loss. Glaucoma is the leading cause of world blindness after cataracts, while the prevalence of open angle glaucoma is estimated at 2-7% in people aged over 40 years. It is estimated that approximately 11.1 million people will be bilaterally blind from primary glaucoma by 2020.[1] Because of the silent nature of glaucoma, patients usually don't present with any symptoms or visual complaints until late in the disease course, particularly with primary open-angle glaucoma. Most patients receive intraocular pressure (IOP)-lowering topical medications for the treatment of glaucoma and need lifelong treatment and regular follow-ups to improve outcomes. Additionally, many glaucoma patients require more than one class of ocular hypotensive drugs to control their intraocular pressure. A major determinant for success in medical therapy is the adherence of patients to their medication. Patients' lack of awareness of the nature of the disease and the risks of failure to comply with treatment, as well as poor performance in implementing medical advices, are the two factors hindering proper treatment in chronic diseases such as glaucoma. Evidence showed that effective medical treatment of glaucoma can prevent up to 50% of blindness, while failure to comply with intraocular hypertension therapy is a serious factor in the progression of glaucoma.[2] Adherence to glaucoma pharmacotherapy is associated with patient-related, medication-related, physician-related and environmental factors and non-adherence can be both intentional and unintentional.[3]

Our purpose is to examine potential nonadherence factors in patients with POAG or OH in our department and to emphasize the importance of doctor-patient communication

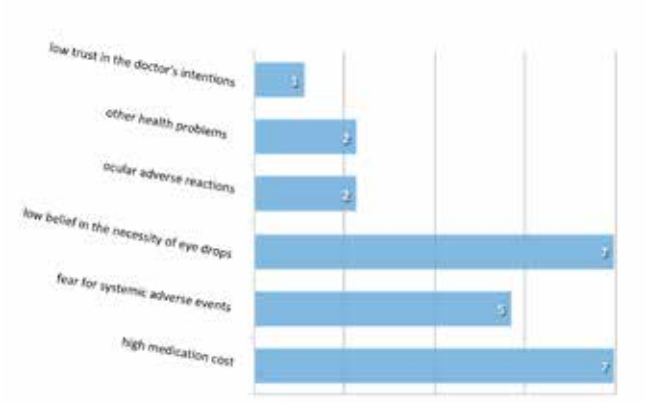

Figure 1: Questionnaire results showing most common nonadherence reasons among a total of 78 patients. 7 patients showed low adherence due to high medication cost (9%), 5 patients had fear of systemic adverse events (6,4%), 7 patients admitted low adherence due to low belief in the necessity of eye drops (9%), 2 patients due to ocular adverse reactions (2,6%), 2 subjects had difficulty adhering to glaucoma treatment because they had other health problems (2,6%) and only one patient showed low trust in the doctor's intentions (1,3%).

in promoting adherence. Good communication has the potential to be incredibly therapeutic and results in improving diagnostic accuracy, patient satisfaction, and adherence to treatment.

Methods

78 patients with diagnosed primary open angle glaucoma or ocular hypertension participated in our study. All of the patients included were under topical medical treatment for at least one year and had at least 3 scheduled visits in our glaucoma unit over the last 12 months. The following demographic information was requested from the patients: race, age, sex, and educational level. A structured questionnaire was used which examined patient-related, medication-related and physician-related non-adherence factors. Those factors were: high medication cost, concerns about the eye drops, fear of potential systemic adverse events, low belief in the necessity of eye drops, low trust in the doctor's intentions and non-adherence due to other health problems.

Results

Among a total of 78 patients, there were 41 females (52,6%) and 37 males (47,4%). 4 patients were under 50 years old (5,1%), 53 patients were between 51 and 70 years old (67,9%) and 21 patients were above 71 years old (27%). 74 patients were literate (94,9%) and 4 illeterate (5,1%). All patients were Caucasian.

Our patients showed high levels of adherence (approximately 85%). 7 out of 78 patients showed low adherence due to high medication cost, 5 patients feared that drops instillation will affect their general health and cause systemic adverse events, 7 patients admitted low adherence due to low belief in the necessity of eye drops, 2 out of 78 patients had ocular adverse reactions (pain, itching, foreign body sensation) which led to incorrect intake of medication, 2 subjects admitted having difficulty adhering to glaucoma treatment because they had other health problems and only one patient showed low trust in the doctor's intentions. (Figure 1).

Discussion

A systematic review has reported that rates of adherence in different studies is 24%–98%,[2] while in our department it was 85%. Scwartz et al found that adherence and persistence with chronic therapies is crucial to prevent disease progression, such as in glaucoma. Patients report high rates of adherence, which are not supported by pharmacy claims analysis. Rates for persistence are generally below 50% at 1 year. Differentiating efficacy of eyedrops from lack of adherence presently confounds ophthalmic treatment. Additionally, as intraocular pressure (IOP) can appear controlled by short-term adherence, the physician can be fooled into believing the patient's glaucoma is well-controlled. Likewise, when progressive worsening is noted despite good IOP control, it can be problematic whether the patient's target pressure needs to be lowered or adherence needs to be improved. White-coat adherence is common, in which patient adherence rises sharply 1 week before the appointment with the physician, then declines rapidly following the appointment. White-coat adherence may make it difficult to assess IOP control over the longer term; cycling behavior with medication use is well-documented. Adherence and persistence rates differ by class of drug, with higher rates associated with prostaglandin use.[4]

The reasons for nonadhering vary. High cost of IOP lowering medication seems to play an important role in patient nonadherence as it is shown in our results, especially for patients who require more than one class of ocular hypotensive drugs to control their IOP. Low belief in the necessity of eye drops is another important barrier in patient adherence, as 9% of asked patients did not believe glaucoma medication really prevents vision loss. The reason is that glaucoma usually requires a lifelong treatment but the patient often does not realize any direct benefits from the therapy. 5 patients feared that topical medication could cause serious systemic adverse events, and studies show that potential side-effects of glaucoma medications is a common reason for low adherence.[2] All of these factors affecting adherence are modifiable, as long as patient-centered communication is established and proper education is provided, thus improving knowledge

about glaucoma by addressing patient perceptions of glaucoma severity, their susceptibility to glaucoma, and how effective the treatment would be for a particular patient.[5] The patients who participated in our investigation self-reported high adherence and they presented as a well-informed group which is attributable to the good doctor-patient communication we try to establish in our department.

Conclusions

The wide array of adherence barriers can be understood in terms of 2 motivational domains: the patient's perceived need for medication balanced against their concerns about taking medication. The goal of adherence intervention, therefore, is to shift the balance of these domains in favor of adherence by enhancing the patient's perception that he or she needs medications and decreasing the patient's concern about taking them.[6] The physician's role goes beyond treatment selection and patient monitoring, however; education and counselling are particularly important to support patients with chronic conditions such as glaucoma. Glaucoma is a preventable cause of blindness if effective and successful treatment can be provided at the appropriate time. As with many other fields of medicine, patient adherence to the medication is a constant challenge that is now recognized as an essential component of the treatment plan. Several studies have demonstrated that patients are more likely to be adherent to their medication if they understand the disease and the need for treatment.[5] Topical medication has the potential to reduce the number of surgical interventions required to treat glaucoma, prevent unnecessary vision loss, and save the overall healthcare system money in the long run, if adherence is maximized.

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