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Screening for depression and suicide: a vital part of glaucoma care

Paul Harasymowycz, MD and Oksana Kaminska, MD

Case Presentation

In late 2014 a young male patient, M.Y., presented with previously diagnosed juvenile glaucoma, treated with drops. M.Y. was not compliant with treatment and had stopped his medication 3 years prior to this visit. Upon examination, his visual acuity was 20/25 and 20/50 +2 in the right and left eyes, respectively. His intraocular pressure (IOP) was 49 mmHg (OD) and 52 mmHG (OS). The visual field showed eccentric 5 degrees of vision of the right eye and 5-10 degrees of the left eye. The patient was initiated on the maximum tolerable medical treatment, including oral medication for glaucoma. A month later he had the first of two non-penetrating glaucoma surgeries, followed by monthly follow-ups. Several months later he had the same surgery for the second eye and resumed monthly follow-ups with bleb needling and anti-VEGF injections. At his last appointment, M.Y. refused visual acuity testing, and his IOP was 17 mmHG (OD) and 18 mmHG (OS) on maximal tolerated medical treatment. The decision was made to place a filtering implant device in the left eye, followed by surgery for the right eye at a later date. All risks and benefits of the procedure were carefully explained, including the possibility of loss of vision.

M.Y. did not show up on his surgery date and we later found out that he had committed suicide. His death left many questions about the potential association between his advanced glaucoma diagnosis and suicide, including if there was anything that could have been done to prevent such a tragic outcome.

More and more patients are consulting the internet for medical information following a diagnosis or before consenting to medical or surgical treatment. A quick Google search for "*What happens if I get diagnosed with glaucoma*", reveals some very discouraging information, including "*glaucoma can lead to blindness*". Many people will not read further to better understand that, with appropriate treatment and follow-up, they can preserve good functional vision for life. Instead, they focus on the potential negative outcomes such as job loss, loss of independence and a vastly reduced quality of life. It is important to remember that "a patient's assessment of his or her objective situation can differ significantly from a physician's assessment and prognosis."[1] At the time of diagnosis, patients need to know and hear the "good news", such as the treatments that are available and the backup options in case of treatment failure. Explaining the treatment strategy can help prevent or ease anxiety. Managing expectations can help build trust between the patient and the doctor and provides the patient confidence in the treatment plan.

BREAKING BAD NEWS

Unfortunately, there will be occasions when physicians are required to share a difficult diagnosis and/or long-term prognosis. One protocol for "breaking bad news", involves the utilization of the six-step SPIKES protocol (**Figure 1**).[2, 3] The first step is setting up the interview. Invite the patient to a quiet room and close the door to protect their privacy. Ask the patient if they would like a family member or friend with them for support. Establish a rapport with the patient and ensure that your time with them is uninterrupted and sufficient to answer any questions they may have. The second step includes assessing the patient's perception of the problem. Ask the patient what they already know about glaucoma to give you an idea of their level of understanding of the condition, as well as to reveal any fears they may have based on their knowledge that will help guide the discussion.

Step 3 involves gaining the permission of the patient to share the details of his/her illness. This step is often overlooked, but clinicians are reminded that some patients wish to delay or avoid discussing their illness. Step 4 centers on providing knowledge and information to the patient. The physician and/or the clinic staff must teach the patient about the disease and the available treatment options. This information that is shared should be concise and adapted to the patient's knowledge and baseline health literacy. During this step, it is crucial to share positive aspects such as the availability of treatment(s) and its success rates in treating the disease. The fifth step involves the addressing of emotions. Identify the emotions expressed by the patient and try to isolate the cause. Ensure that the patient is given the opportunity to express his/her emotions so that an appropriate response, demonstrating an understanding of the emotions and what caused them, is shared. Remember that the patient who appears calm may still have concerns and fears that are not being expressed outwardly. The sixth step involves summarizing. Ask the patient if he/she has any other questions, particularly if they have not been very vocal, then explain important next steps.[2,3]

STEP 1: S—SETTING UP THE INTERVIEW
• Arrange for privacy • Involve significant others • Sit down • Make connection and establish rapport with the patient • Manage time constraints and interruptions.
STEP 2: P—ASSESSING THE PATIENT'S PERCEPTION
• Determine what the patient knows about the medical condition or what they suspect • Listen for and assess the patient's level of comprehension • Accept denial but do not confront at this stage.
STEP 3: I—OBTAINING THE PATIENT'S INVITATION
• Ask the patient if they wish to know the details of the medical condition and/or treatment • Accept patient's right not to know • Offer to answer questions later if they wish
STEP 4: K—GIVING KNOWLEDGE AND INFORMATION TO THE PATIENT
• Use language the patient understands • Consider educational level, socio-cultural background, current emotional state • Give information in small chunks • Check whether the patient understood the information • Respond to the patient's reactions as they occur • Give any positive aspects first e.g.: Cancer has not spread to lymph nodes, highly responsive to therapy, treatment available locally etc. • Give facts accurately about treatment options, prognosis, costs etc.
STEP 5: E—ADDRESSING THE PATIENT'S EMOTIONS WITH EMPATHIC RESPONSES
1. Identify emotion expressed by the patient (sadness, silence, shock etc.) 2. Identify cause/ source of emotion 3. Give the patient time express his or her feelings, and then respond in a way that demonstrates you have recognized connection between 1 and 2.
STEP 6: S—STRATEGY
• Close the interview • Ask whether they want to clarify something else • Offer agenda for the next meeting eg: I will speak to you again when we have the opinion of cancer specialist

Figure 1: *SPIKES: A Six-Step Strategy for Breaking Bad News; adapted from Singh et al, 2017*

DEPRESSION IN GLAUCOMA PATIENTS

Depression in glaucoma patients has been described and studied. In a population-based retrospective cohort study using the Taiwan National Health Insurance Research Database from January 1, 2001, through December 31, 2011, glaucoma patients (n = 8777) and age- and gender-matched control subjects without glaucoma (n = 35,108) were compared for depression. The results of this study demonstrated that glaucoma patients had a significantly higher cumulative hazard of depression compared to the control group ($p < 0.0001$). The Cox regression model indicated that the glaucoma group had a significantly higher risk of depression (adjusted HR = 1.71). Researchers also looked at predictors of depression within the glaucoma group and concluded that older age, female gender, low income, substance abuse, and living alone were significant risk factors for depression. However, the use of β-blocker eye drops and the number of glaucoma medications were not significant risk factors for depression.[4]

In another study researchers looked at depression in newly diagnosed open-angle glaucoma patients and found that 12.5% of subjects reported symptoms associated with mild or worse depression, and 55.3% reported at least one depressive symptom. By one-year post-treatment, symptoms associated with mild or worse depression had decreased to 6.7% and 38.4% of patients had reported at least one depressive symptom. These measures continued to decline over the next 9 years.[5] The study reported several factors predictive for the risk of depression. The strongest association was with self-reported visual function. In contrast, clinical measurements such as MD (mean deviation) and IOP showed no correlation with depression.[5] While the MD and IOP are variables that play an important role in treatment decision-making for the clinician, the results of this study suggest that the subjective feelings of the patient may be as important as the clinical factors in managing glaucoma.

According to a systematic review and meta-analysis performed, glaucoma is the ophthalmologic disease with the second-highest prevalence of depression or depressive symptoms at 25%.[6]

SCREENING FOR DEPRESSION

In a study from 2014, researchers found that a simple 2-question questionnaire (PHQ-2: Patient Health Questionaire-2) was an acceptable method to use in ophthalmology clinics to screen for signs of depressive symptoms.[7] This questionnaire asks if the patient has felt down, depressed, or hopeless and if they have had little interest or pleasure in doing things in the past 2 weeks. The answers are graded on a scale from 0 (not at all) to 3 (very often). A score equal to or greater than 3 has high sensitivity (83%) and specificity (92%) for depression.[8]

THE RELATIONSHIP BETWEEN DEPRESSION AND SUICIDE

It has been observed that depressed patients have a higher rate of mortality from suicide, highlighting the need for screening for depression and suicide.[9] Suicide screening can be done quickly by asking 5 simple questions (**Figure 2**).[10]

According to The Canada Public Health report from 2022, 11.8% of people report having had suicidal thoughts during their life.[11] Despite this ominous statistic that demonstrates about 1 in 9 of our patients have had suicidal thoughts in the past, screening is rarely done.

MANAGEMENT OF A SUICIDAL PATIENT IN THE CLINIC

A patient that has been identified as having or being at risk for suicidal ideation should be transferred to the emergency department for psychiatric evaluation and possible inpatient hospitalization or referred for psychiatric evaluation on an outpatient basis. Clinicians should keep in mind that while awaiting transfer, the ophthalmology clinic is responsible for the patient's safety.[12] Unfortunately, some patients may succumb to suicide which may be difficult for the treating physician to psychologically process and accept, leading to stress and anxiety. Talking to colleagues, particularly those who may have had similar experiences, may be helpful. Clinicians may also wish to review the patient's chart to gain a greater understanding of the situation.[13,14]

WHAT CAN WE DO DIFFERENTLY?

Preventing suicide and reducing the rate of depression in glaucoma patients is a team effort. Training clinic staff (i.e. assistants and nurses) to work with low-vision patients by educating them on how to question patients about depression and suicide can be extremely helpful in mitigating the risk. Clinic staff can provide basic information about glaucoma, treatment, and follow-up visits as well as emotional support. For some patients with anxiety or depression, care coordination involving follow-up visits with an optometrist can be reassuring. In addition, family members can be helpful, especially for older patients or those with comorbidities, with the administration of topical medications and with travel that is related to follow-up medical appointments.

Referring patients to a vision rehabilitation center may also be useful once the patient's vision loss interferes with their activities of daily living. The resources provided by the vision rehabilitation center as well as the support that comes from interacting with other similar patients with vision loss can help patients accept and thrive while living with their glaucoma.

CONCLUSION

By remaining alert to the potential for negative emotions surrounding a glaucoma diagnosis and treatment, clinicians can intervene earlier by referring them for a consultation with a psychologist thereby preventing the onset of depression. Ultimately, listening to patients and understanding their perceptions and fears serves as an important reminder that we treat not only the disease, but the patient with the disease.

ASK THE PATIENT
1. In the past few weeks, have you wished you were dead?
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?
3. In the past week, have you been having thoughts about killing yourself?
4. Have you ever tried to kill yourself?
IF THE PATIENT ANSWERS YES TO ANY OF THE ABOVE, ASK THE FOLLOWING ACUITY QUESTION:
5. Are you having thoughts of killing yourself right now?[10]

Figure 2: *ASQ Questionnaire; NIMH, accessed June 2022*

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