

# RECOGNIZING THE PATIENT AT RISK FOR DEPRESSION AFTER VISION LOSS

Depression may be a necessary step in adjusting to an impairment.

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The emotional toll of visual impairment is difficult to measure. Patients report shock, fear, frustration, and panic when faced with this eventuality. Loss of vision is one of the most greatly feared health conditions, ranked just behind debilitating diseases such as AIDS, cancer, and Alzheimer disease.<sup>1</sup>

Adults with vision loss describe feelings of low self-worth, helplessness, anxiety, and depression. The prevalence of depression in the general population increases significantly with age, but it is even higher in those with visual impairment. Adults who have lost functional use of their vision are 90% more likely to be depressed than those with normal vision.<sup>2</sup>

At least one study suggests that depression may be a necessary step in adjusting to an impairment, as it indicates awareness and acceptance of the disability, which then facilitates successful treatment.<sup>3</sup> Although clinicians may not be able to prevent comorbid depression, we need to recognize when it occurs in our patients so that we can ensure that appropriate referrals for treatment can be made. This article covers five fundamental concepts related to depression in vision loss that are easy to flag in our busy clinical lives: (1) visual acuity, (2) visual function, (3) age, (4) disease, and (5) health-related quality of life (HR QOL).

## FUNDAMENTAL **VISUAL ACUITY**

**1**

Recognizing which patients are at risk for depression would be easy if depression were associated with a simple, measurable ocular risk factor. Visual acuity assessment is a part of every ophthalmic visit, and studies show a relationship between more severe vision loss and increased depression.<sup>4</sup> In general, patients who

experience loss of vision are more likely to be depressed than those with normal vision. Additionally, patients with vision loss are more likely to have other comorbid conditions, to have worse overall health, to be disabled, to be cut off from social networks, and to have reduced access to health care, all of which makes them more predisposed to depression and less likely to seek treatment. The assumption that only patients who are severely visually impaired are depressed is not supported by the literature. In fact, over time, patients with severe visual impairment are more likely to develop a positive outlook on life and are less likely to remain depressed compared with those with moderate to mild vision loss.<sup>1</sup>

Further, we cannot assume that a patient with mild to no visual impairment is not at risk for depression. A recent review of depression in age-related macular degeneration (AMD) found that, despite advances in treatment of AMD, depression is still highly associated with the disease. One in three patients with AMD who reported depression and anxiety had a visual acuity of 20/60 or better, and some even had visual acuities of 20/20. Yet these patients felt they could not function with their current level of vision and that they needed rehabilitation.<sup>5</sup>

It is important to understand that, although visual acuity may not be the defining factor for the development of depression in our patients, it can be used as a flag for problems among our patients' caregivers. Care burden increases as the severity of visual impairment increases, and, sadly, this increased burden can lead to depression, lower health, and even early mortality in elderly caregivers.<sup>6</sup>

## FUNDAMENTAL **VISUAL FUNCTION**

**2**

Visual function is a more powerful predictor of depression than visual acuity alone. Adults with

visual function loss are 90% more likely to be depressed than those without functional loss. Key activities such as driving have been found to be especially predictive of depression in adults with vision loss.<sup>2</sup>

This is a key point because every ophthalmic visit involves careful documentation of visual acuity but little to no documentation of visual function. How is decreased visual function measured? Both poor visual acuity and poor contrast sensitivity have been shown to predict decreased visual function, but it may be more effective to simply ask patients if they encounter challenges with daily activities or mobility. Up to 95% of patients with moderate or severe depression were identified based on positive or negative responses to three simple statements:<sup>4</sup>

1. I still enjoy things I used to enjoy.
2. I can enjoy a good book or radio or television program.
3. I feel cheerful.

It may be surprising to find that even those with minimal or no visual acuity loss may report challenges with their visual tasks at home and work or in social activities. This could be due to undetected loss of contrast sensitivity, as normal visual acuity charts test only high-contrast letters. It could also be the influence of depression: Patients who are depressed tend to underestimate their functional capabilities and limit themselves, regardless of their actual capabilities. So, despite good visual acuity, a patient with complaints of decreased visual function is at risk for depression.

#### FUNDAMENTAL AGE

### 3

Statistically, older patients are more likely to have visual impairment, report decreased visual function, and be susceptible to depression. Those aged 70 years and older report the lowest QOL scores, tend to have the worst physical health, and are at higher risk for neuropsychologic degenerative disease. All of this predisposes them to depression, which is estimated to exist in 15% of the general elderly population and twice that rate in the visually impaired elderly population.<sup>7</sup>



## AT A GLANCE

- Adults with vision loss describe feelings of low self-worth, helplessness, anxiety, and depression.
- Eye care providers need to recognize the occurrence of comorbid depression to ensure that appropriate referrals for treatment are made.
- Several factors are linked to depression and vision loss, including visual acuity, visual function, patient age, disease, and health-related quality of life.

Similar trends extend into the younger adult population as well. In the process of dealing with an acquired visual impairment, adults may find themselves facing many unexpected changes, such as loss of occupation or vocational goals, loss of economic security, and loss of recreation and independence. Adults report that they have to redefine their personalities, as they are no longer in the same roles at work, at home, or at play. There are changing social and family roles, increased financial losses, and increased burdens on other family members or friends. It is no surprise that rates of depression are higher among younger adults with visual impairment. Zhang et al<sup>2</sup> noted that self-reported visual function loss was significantly associated with depression in about 11.3% of patients when the study population included younger adults (age 20 years and older) with visual impairment. This is, again, twice the rate seen in non-visually impaired cohorts (estimated 4.8% prevalence of depression).<sup>2</sup>

In younger children, it is more difficult to make predictions about the psychological effects of vision loss. Depending on the level of impairment, children may have higher levels of depression and anxiety, and those with profound vision loss or with multiple sensory impairments can be at risk for learning and development challenges or even autistic-like behaviors.<sup>8,9</sup> However, studies have shown that children with visual impairment are no different in psychological impairment compared with their normally sighted peers and that, with compensation strategies, children who are visually impaired can develop routes of normal social and emotional development alongside their fully sighted peers.<sup>10,11</sup>

#### FUNDAMENTAL DISEASE

### 4

AMD affects nearly 9% of the global population.<sup>7</sup> It is the most common cause of visual impairment in the Western world, and its prevalence is expected to increase as the population ages. The development of pharmaceutical interventions and preventive treatments has decreased the number of patients profoundly visually impaired by AMD. However, the presence of the disease is still a major risk factor for depression. Even those with mild vision loss have reported depression and anxiety and felt they needed rehabilitation for their loss.<sup>5</sup> Only a small percentage of patients with AMD qualify for pharmaceutical treatment, and many of them will not see improvements in their vision or may continue to progress despite treatment. This may be seen as a failure of treatment from the patient's perspective and could lead to depression.

Similarly, patients with vision loss from glaucoma were more likely to report lower QOL scores and to be depressed.<sup>12</sup> It is important to recognize the negative effect depression has on patient compliance, especially in a disease such as glaucoma, which requires daily instillation of topical medication and frequent follow-up. Without adherence to treatment, patients risk further vision loss, which creates a potential cycle

of further decreased QOL, increased depression, and worsening compliance.

Diabetic eye disease can cause large fluctuations in visual acuity that can be quite debilitating. Even seemingly benign changes such as transient refractive shift can affect patients' abilities to see well enough to manage detailed diabetic care routines, such as administering insulin, monitoring glucose levels, or reading medication labels. The psychosocial manifestations of diabetes are complex, much like the disease itself. There is a high rate of depression, which can independently increase blood glucose levels and the risk of diabetic retinopathy development and progression.<sup>13</sup> Patients with diabetic vision loss report levels of self-blame in the mismanagement of their disease, noting that their vision loss could have been avoided by their own control. However, we know that diabetes can be as much a socioeconomic condition as it is a physical and emotional disease.

#### FUNDAMENTAL

## 5

### HR QOL FOR INDIVIDUAL PATIENTS

A patient's assessment of his or her objective situation (eg BCVA of 20/30 secondary to AMD) can differ significantly from a physician's assessment and prognosis; however, ultimately, subjective perception is a more powerful predictor of outcome than any objective measure of health. As Henry Ford once said, "Whether you think you can, or you think you can't, you're right."

HR QOL is an assessment of a patient's perception of how a disease or disability affects his or her physical, emotional, and social health. When patients feel that they cannot read the newspaper, recognize faces, or mobilize independently, they have lower HR QOL scores and are at higher risk for depression. If one was to test visual acuity in these patients, one might not find clear associations. In a study, individuals with worse vision were not necessarily the ones with lower HR QOL scores. Whether the disability was real or perceived, the outcome was depression, and, not surprisingly, the presence of depression adversely alters one's perceptions of one's actual abilities.<sup>2</sup>

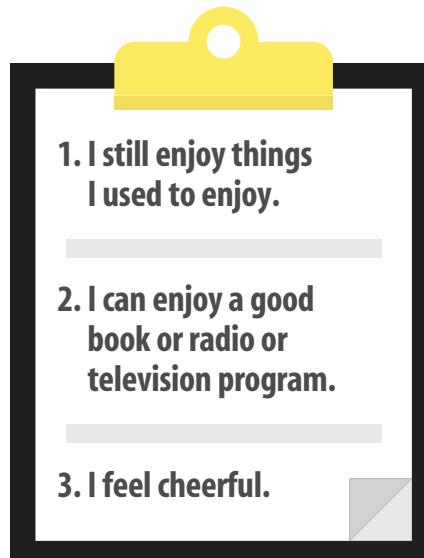
### SUMMARY

What can we do to help our patients with vision impairment deal with depression?

**Recognize.** The Preventing Depression in Patients With Macular Degeneration trial identified that many practitioners have limitations in recognizing depression and discussing it with their patients.<sup>5</sup> We need to open up this dialogue, as most individuals with depression will respond to treatment such as psychotherapy, medication, self-management, problem-solving treatment strategies, and other low-vision programs. Some patients may not even know they are depressed. Asking a few simple questions about visual function, such as those mentioned earlier and in the accompanying graphic, can help identify depression in patients.

## IDENTIFYING PATIENTS WITH DEPRESSION

Up to 95% of patients with moderate or severe depression were identified based on their responses to three simple statements:<sup>4</sup>



Practitioners should incorporate two additional questions for patients with acquired, sudden, and/or severe vision loss:

1. Apart from blurred vision, have you noticed anything unusual about your vision? Have you had any unusual visual experiences?
2. It is well known that people with blurred vision can sometimes see things that they know are not real. Have you experienced anything like this?

Charles Bonnet syndrome is under-reported but could affect as many as 40% of patients with acquired, severe, and usually sudden vision loss.<sup>14</sup> Although the condition is self-resolving in most cases, resolution can take up to 18 months, during which time patients are increasingly disturbed, anxious, and depressed. However, if they are made aware that Charles Bonnet syndrome is a normal phenomenon of vision loss rather than potential dementia, many of their symptoms can be relieved.

**Treat.** Ensure that the patient has the best possible visual acuity. Even if 20/20 cannot be achieved, improvements have been shown to be beneficial for patient QOL. Cataract surgery can improve visual acuity and vision-related QOL and can relieve depressive symptoms in elderly patients. Refractive error correction can also decrease depressive

symptoms and has been shown to improve QOL, as some nursing-home residents have experienced.<sup>2</sup>

**Refer, and then refer again.** A low-vision rehabilitation consult should be a routine plan for any patient who reports challenges with visual functioning. The timeliness of a referral can vary. It is acceptable if referrals are not made immediately, as many patients with vision loss tend to cycle through stages of grieving, denial, and acceptance. Therefore, it is crucial that we repeatedly (at every visit) ask patients about visual challenges and depression and that we repeatedly refer patients for rehabilitation and/or other treatments for depression.

**Treat the family.** Care burden is an independent risk factor for early mortality in elderly spouses of disabled patients.<sup>6</sup> As clinicians, we need to let family members know that they are also at risk for depression and should seek treatment and assistance. Remember that low vision rehabilitation trains patients for independent living, thereby taking away a lot of the burden of care that family and spouses otherwise incur.

**Train the staff.** Patients report feelings of shock, panic, and fear at the time of visual impairment diagnosis; unsympathetic staff members can further exacerbate such a traumatic diagnosis. In counseling patients, we should no longer be allowed to say, "Nothing more can be done." We should instead convey the need for rehabilitation and emotional support. Staff members must be trained to repeat this message and convey it time and time again. Ultimately, the goal is not only to manage patients' ocular health but also to address their visual well-being. ■

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- Financial disclosure: None