

Psychosocial aspects of vision loss associated with head trauma

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ABSTRACT: The adjustment to sudden and severe vision loss is always difficult. However, when vision loss is the result of head trauma, additional psychological and psychosocial factors complicate the adjustment process. Patients often must cope with a variety of cognitive and personality changes that dramatically affect the ability to adapt to physical limitations.

KEY WORDS: Head trauma, psychosocial issues, vision loss, personality changes, rehabilitation, low vision, counselling, family dynamics

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The psychological impact of sudden and severe vision loss and the subsequent adaptation to the change in visual functioning are unique to each patient. Several factors can influence this adaptation process and the capacity and desire to resume former activities as much as is possible. Some of the more critical factors include age of onset, quality of psychological adjustment and past coping strategies, quality of the support system provided by family and friends, and willingness of the eye care specialist to support and encourage the rehabilitation efforts.^{1,2,3}

Usually the adjustment process and willingness to accept rehabilitation efforts, including low vision services, follows a lengthy period of reactive depression. During this time patients will display a wide range of emotions, from anger and resentment that more cannot be done to restore sight, to passive, silent withdrawal. Low vision devices will generally be rejected outright or accepted but not used. As the patient begins to adapt to his changed visual status, he will be more ready to accept rehabilitative services. Throughout this period the optometrist needs to remain supportive and concerned about the patient's well-being. This will increase the likelihood that the patient will respond positively to efforts to maximize visual functioning and accept other referrals for services.

When vision loss is the result of head injury, rehabilitation and the eventual adaptation to the vision changes become significantly more difficult and complicated. Simultaneously as the individual is faced with adjusting to a vision loss that may be severe and irreversible, he is also coping with other physical handicaps and psychological changes that are the result of the injury. In particular the psychological changes, which can dramatically alter personality and behavior, have a tremendous impact on rehabilitation efforts.

Some of the more common personality and behavioral changes resulting from head injury include: 1) memory impairment, 2) concentration and attention deficits, 3) various aphasiae, 4) learning impairment, 5) sensory and perceptual deficits, 6) increased impulsivity and hyperactivity, 7) emotional lability, 8) impaired self awareness, and 9) anosognosia.^{4,5,6,7} These psychological changes can greatly influence the individual's ability to adjust to any physical impairments. For example, in the case of a vision loss if the head injury has produced a distorted sense of self, a decreased ability to concentrate, emotional hypersensitivity, or a denial of disability, the optometrist's attempts to effectively introduce low vision or adaptive devices will be affected. What may be viewed as patient resistance may instead be a symptom of these psychological changes. Even in the face of this resistance, the optometrist needs to demonstrate extraordinary patience, encouragement, and support if the devices are to be tried and eventually accepted.

The optometrist also needs to be sensitive to the patient's reaction to the appearance of the adaptive device. Frequently the psychological changes produced by the head injury, include feeling "different" or "out of step," and a heightened concern about "fitting in." Patients with these concerns may initially refuse any adaptive

device that is odd looking or will call attention to them, regardless of how helpful the device may be. As with any other low vision patient, the passage of time and the patient's gradual acceptance of his vision loss, coupled with the optometrist's willingness to work with the patient may eventually make him more willing to accept and use the device.

While each individual reacts differently to the physical and psychological changes that accompany head injury, difficulties in overall psychosocial adjustment are commonplace. Frequently these difficulties can become as debilitating as the original injuries. Depression, withdrawal and isolation, irritability, extreme dependency, inappropriate or childish behavior, difficulty with interpersonal relationships, and loss of ambition or motivation are common psychosocial consequences of head injury. Often it is unclear whether these consequences are the direct result of the injury, or are the individual's response to his injury, his disabilities, and his changed life, or some combination of both. In any case, these personality changes and alterations in psychosocial functioning can become the greatest obstacles to rehabilitation.⁸ They can be difficult to understand and even more difficult to treat. While the head-injured patient may be aware of the consequences of his behavior, his impaired self awareness and/or his denial of physical or psychological disability can influence his ability to take responsibility for his behavior. In such situations, both the patient and the health care practitioner experience frustration and helplessness as rehabilitation is attempted.

One of the more difficult situations confronting the optometrist occurs when the patient's complaints cannot be explained by the examination results. Failing to find any organic etiology, the optometrist may be tempted to diagnose the symptoms as having psychogenic origins or label the patient as a malingerer. However patients who have had a head injury frequently report that they continue to experience a number of symptoms (e.g., impaired vision, dizziness, headaches, concentration difficulties, and general feelings of malaise) long after the injury. Many have begun to view themselves as disabled, and depending on the cause of the injury, they may be involved in disability or compensation claims. Often they have been examined by a number of specialists in the hope that an organic basis can be found to explain their symptoms, and they may want the optometrist to confirm a disability status.

While the optometric examination may not reveal an organicity for the complaints, we should be cautious about a diagnosis of psychogenic origins or "malingering". It has been shown that there is a significant relationship between closed head injury with impaired consciousness and the report of these and other symptoms.⁹ In fact, impaired vision is the most frequently reported complaint. Other studies have shown that

there is no relationship between the frequency of these complaints and claims for compensation.^{13,14}

Case report

A 48-year-old woman complained of transient vision loss, extreme photophobia, severe headaches, dizzy spells, and bilateral tinnitus as a result of a job-related head injury 2 years earlier. She had been struck in the back of the head by a metal cart resulting in a 6-week hospitalization for treatment of severe nasal hemorrhage, several convulsive episodes, cerebral anoxia, and weakness on the left side and face. Since the hospitalization she had seen numerous specialists, hoping to find treatment for these remaining symptoms. Neurological evaluations revealed no specific abnormalities, although an audiological evaluation did reveal moderate hearing losses in both ears.

Her highly anxious emotional state and her extreme photophobia prevented a thorough eye examination. She also had difficulty providing an organized medical history, and was excessively concerned about having her symptoms taken seriously. Since the examination could not be completed, optometric intervention included a referral for social work services to assist the patient in gaining some control of her affect so that a history could be taken, medical records obtained, and the examination eventually completed.

Impact on family

Problems in psychosocial adjustment have enormous consequences for family members also. As the individual and his or her family attempt to cope with the physical and psychological changes brought about by injury, there may be a permanent restructuring of family relationships and roles. Family members may need to assume caretaker responsibilities, and there are economic considerations if the head injured family member is unable to resume employment.

Family members often report that the psychological changes are more difficult to cope with than the physical changes. Studies have shown that family members often cannot understand the personality changes resulting from head injury and assume that the patient is not making an effort to improve.¹⁰ Others report that the patient "acts like a stranger," or is "self-absorbed."^{11,12}

Even when there are permanent physical and psychological changes, family members often deny both the severity and the impact of these changes. They may persist in the belief that in time the patient will recover completely, and when this does not happen, they may blame the patient or the rehabilitation specialists. If the optometrist is aware of these family dynamics, he can influence the outcome of the examination. Both the

patient and the family need to be counselled to realistically accept the visual deficits and to be encouraged to develop appropriate expectations of the patient's capabilities. This can be done in a positive, constructive manner, in which the patient's capabilities are emphasized.

Young adults

While the adaptation to changes brought on by head injury is always difficult, it is especially so when the injury occurs in adolescence or young adulthood. And it is in the 16-35 year-old group that traumatic head injury occurs most often.¹⁵ The young adult who suffers a severe head injury also faces disrupted educational and vocational plans, and the movement toward independence has to be modified or abandoned. Rehabilitation efforts are often hampered by the patient's struggle to accept his physical and psychological limitations and he may blame others for his failures.

Case Report

A 25-year-old female suffered a cerebral aneurysm of the right hemisphere as a result of repeated blows to the back of the head. Following the beating she was left unconscious and without medical attention for several hours. After surgery and a lengthy rehabilitation in which she had to relearn speech and mobility, she continued to have periodic seizures and an unsteady gait. Vision loss included a right homonymous hemianopia. She reported constant diplopia at distance, and constant headaches. She also reported that her short-term memory had been affected and that she was forgetful.

Her emotional reactions were most difficult to predict. At times she would express frustration and impatience at her limitations, and at other times she would blame her friends and family for failing to understand her problems and expecting too much of her. She complained that they accused her of intentional forgetfulness and that she was not trying hard enough to become independent again. This would lead her to feelings of despair and thoughts of suicide. Her mood also determined how she viewed her vision problems. When rehabilitation was going well she tended to minimize the vision limitations as an annoyance and just something to get used to. But whenever she felt under pressure, her vision problems became more critical in determining her overall success. At these times she became more demanding and unwilling to settle for what could be done.

Although optometric intervention was limited, the optometrist's attention to these psychological issues

was most important. She responded positively to the suggestion of a psychotherapy referral so that she might better cope with her feelings of loss and to better manage her family's reactions to her and her injuries.

Conclusions

The high incidence of psychological and psychosocial problems associated with head trauma, have important implications for the optometrist. Attention to these factors during the optometric examination can result in a more comprehensive evaluation and will certainly promote a more therapeutic environment for the patient. ■

References

1. Mehr E, Freid A, Mehr H. Psychological and sociological factors. In: Mehr E, Freid A. *Low vision care*. Chicago: Professional Press, Inc., 1975: 13-24.
2. Emerson DL. Adjusting to visual impairment. In: Fave EE ed. *Clinical low vision*. Boston: Little, Brown, 1984: 379-94.
3. Allen MN. The meaning of visual impairment to visually impaired adults. *J Advanced Nursing* 1989; 14:640-6.
4. Brooks N, ed. *Closed head injury: psychological, social, and family consequences*. Oxford: Oxford University Press, 1984.
5. Lezak MD. The problem of assessing executive functions. *Int J Psychol* 1982; 17:281-97.
6. Ben-Yishay Y, Silver SM, Piasetsky E, et al. Relationship between employability and vocational outcome after intensive holistic cognitive rehabilitation. *J Head Trauma Rehabil*. 1987; 2:35-48.
7. Long DF. Issues in behavioral neurology and brain injury. In: Ellis DW, Christensen AL, eds. *Neuropsychological treatment after brain injury*. Boston: Kluwer Academic Publishers, 1989: 39-90.
8. Rosenthal M. Behavioral sequelae. In: Rosenthal M, Griffith ER, Bond MR, Miller, JD, eds. *Rehabilitation of the head injured adult*. Philadelphia: F.A. Davis Company, 1983: 197-208.
9. Carlsson GS, Svardsudd K, Welin L. Long-term effects of head injuries sustained during life in three male populations. *J Neurosurgery* 1987; 67:197-205.
10. Prigatano GP. Personality and psychosocial consequences after brain injury. In: Meier MJ, Benton AL, Diller L, eds. *Neuropsychological rehabilitation*. New York: Guilford Press, 1987: 355-78.
11. Mauss-Clum N, Ryan M. Brain injury and the family. *J Neurosurg. Nurs.* 1981; 13(4): 165-9.
12. Ellis DW. Neuropsychotherapy. In: Ellis DW, Christensen A, eds. *Neuropsychological treatment after brain injury*. Boston: Kluwer Academic Publishers, 1989:241-269.
13. Rimel RW, Giordani B, Barth JT, et al. Disability caused by minor head injury. *Neurosurgery* 1981; 9:221-8.
14. McKinley WW, Brooks DN, Bond MR. Post-concussional symptoms, financial compensation and outcome of severe blunt head injury. *J Neurol Neurosurg Psychiatry*. 1983; 46:1084-91.
15. DeJong G, Batavia AI, Williams JM. Who is responsible for the lifelong well-being of a person with a head injury? *J Head Trauma Rehabil* 1990; 5(1):9-22.

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