

VISUAL RECOVERY

FOLLOWING CHIROPRACTIC INTERVENTION

Greg Gilman, O.D.
John Bergstrand, D.C.

ABSTRACT

An elderly man experienced a complete loss of vision following head trauma. It was determined that optometric and ophthalmological treatments were not indicated. The patient was referred to a chiropractor and after a series of chiropractic adjustments the patient's vision returned. Possible neurological explanations are addressed.

KEY WORDS

trauma, blindness, chiropractic adjustment, retinoscopic reflex, and visual acuity

LH, a 75-year-old male presented with a self diagnosis of blindness on 4/4/88. He was interested in determining if anything could be done to help his visual condition.

His ophthalmological record indicated that he had undergone cataract removal and intraocular lens (IOL) implantation for the left eye two years previously and his postsurgical corrected acuities were OD 20/50, OS 20/50, and OU 20/40. The record indicated that the surgery was without complication and the results were satisfactory. Bilateral macular degeneration was also reported. LH had a history of other medical problems and had taken Tagamet for many years. He had lung cancer and a longstanding coronary condition. Other medications had been taken in the past, but there had been no change in any medication for the six months prior to the 4/4/88 vision examination.

His latest prescription was: OD +1.75 -4.75 x 96, OS +0.25 -1.75 x 43 with a bilateral add of +3.00.

LH indicated that he had some soreness in his neck from an injury that had happened the previous month. He had fallen between two logs and hit both sides of his head. He immediately experienced head pain and dizziness. The following day when he awoke he had lost all vision. A CAT Scan was administered. The attending physician was attempting to rule out a cerebral blood clot as the cause of the vision loss. The results of the CAT Scan were negative.

OPTOMETRIC DIAGNOSTIC FINDINGS

It was not possible to measure visual acuities. LH was using a white cane and gave some indication of light perception. The pupils were 1-2 mm and did not react to light. The fundus evaluation showed

bilateral slight optic atrophy and mild macular degeneration. The IOL in the left eye was in position and the eye was quiet without signs of inflammation or other problems. The intraocular pressure (IOP) were 15 OD and 15 OS mm Hg. LH was not able to respond to any of the usual vision tests. The distance and nearpoint retinoscopy showed a dull, distorted reflex in each eye. Attempts to induce retinoscopic reflex changes with small and large amounts of dioptric lens changes were unsuccessful. The retinoscopy reflexes were a dull reddish-orange. The tentative diagnosis was blindness due to head trauma.

OPHTHALMOLOGICAL DIAGNOSTIC FINDINGS

As a result of the optometric examination LH was referred to an ophthalmologist for a confirming diagnosis. The ophthalmological evaluation was given on 7/13/88. The time interval between the initial and the confirming examination occurred because of the patient's transportation limitations. At the confirming examination bilateral light perception was the only visual response. The refractive evaluation did not show any improvement. The clinical impression from the ophthalmologist was that no treatment was indicated and the vision loss was permanent.

OPTOMETRIC PATIENT MANAGEMENT

At the time of the original examination (4/4/88) it did not appear that optometric treatment would benefit LH. When the ophthalmologist reported that no medical treatment was indicated the patient was then referred for chiropractic evaluation. Both authors of this case history have seen several patients who had

experienced vision changes after receiving chiropractic adjustments. Further, vertical phorias and tropias with accompanying neck pain had often seemed to be positively affected by chiropractic treatment. Some of our patients had reported "seeing better" after chiropractic adjustments, but we were not able to clearly document those changes. LH had expressed interest in any type of treatment that had the possibility of helping his sudden loss of vision. (The historic original chiropractic case with Dr. D.D. Palmer in 1895 involved a traumatic hearing loss which was treated by chiropractic adjustment with full recovery of the auditory function.¹) Consequently, LH was referred for a chiropractic evaluation.

CHIROPRACTIC EVALUATION AND DIAGNOSIS

Palpatory examination of the patient's neck revealed taut and tender muscles in the suboccipital area. Palpation and observation also revealed restricted range of motion in the atlanto-axial area. X-ray findings were consistent for a 75-year-old man.

The diagnosis was cervical subluxation complex with autonomic nervous system involvement.

CHIROPRACTIC TREATMENT

Treatment consisted of adjusting the atlas vertebra. There were 11 adjustments over a period of three months with changes in vision noted by the patient after the third adjustment.

FOLLOW-UP OPTOMETRIC CARE

After the chiropractic treatment, LH returned for a vision examination on 11/28/88. He told of his vision improvement starting with the third chiropractic adjustment. At that point he stated that he first began seeing shades of gray instead of just black. After the next several adjustments the visual change he experienced was the addition of blue swirling circles. This was followed with yellow areas in the field of gray. Later he began to distinctly see light coming through a window.

The distance visual acuity findings on 11/28/88 were: OD 20/50, OS 20/100, and OU 20/50. The pupils were 1-2 mm and slightly reactive to light and near-far

stimulus. The fundus and other eye health were unchanged. The retinoscopic reflexes had changed significantly and were easier to evaluate. The distance retinoscopy was OD +3.00 -4.50 x 97 and OS +1.75 -2.75 x 74. The subjective refraction was OD +2.50 -4.75 x 99 with 20/40 and OS +1.00 -3.00 x 72 with 20/100. The distance phoria (#8) was ortho and the base-in and base-out duction (#9, #10 and #11) evaluations were unreliable. With an arbitrary +3.50 add, the nearpoint findings were: phoria (#13) 16 exophoria, base-out (#16) 6/8/-6, base-in (#17) 16/30/24. The nearpoint acuities with a +3.50 add were 20/20, 20/100, and 20/20.

An additional progress evaluation was done 1/9/89 and the acuities were 20/50++, 20/100 and 20/50++. LH reported that he was again able to read comfortably and he was continuing his chiropractic care.

DISCUSSION

Some optometrists have heard patients report improved vision after chiropractic adjustment. There is a paucity of literature and research to confirm these patient observations. The basic rationale for chiropractic adjustments is the correction of the nerve interference that is caused by vertebral subluxation. Correcting this innervational interference may precipitate many diverse physiological and behavioral changes.

A theory to explain these results was advanced by chiropractor Mabel Palmer.² Dr. Palmer pointed out an anatomical communication between the spinal nerves of the upper cervical region and the various visual fibers. The connection is as follows: the first four cervical nerves communicate with the Rami communicants; the Rami communicants communicate with the superior cervical ganglion; the superior cervical ganglion communicates with the cavernous plexus (internal carotid nerve); the cavernous plexus communicates with the ciliary ganglion, the oculomotor nerve, the ophthalmic branch of the trigeminal nerve and the ophthalmic artery.³ Chiropractic theory indicates that physical interference with nerves can potentially cause diminution of their function. In this case, chiropractic manipulation may have eliminated the interference with the resulting return of visual function.

A second theory to explain the return of vision would involve cervical soft tissue trauma (cervical subluxation complex) that affects the sympathetic innervation to the blood vessels of the optic nerve.⁴ By eliminating innervational interference, the optic nerve blood supply may have returned to normal after being constricted by the trauma.

A third possibility is spontaneous remission; however, the authors and the patient do not feel that this was the cause of the return of vision. The vision findings had been confirmed medically approximately three months after the initial optometric examination and were stable. The authors' and patient's opinions are that the chiropractic adjustments helped the patient to regain the vision he had traumatically lost.

A literature search was done on Medline with no significant publications found relating to this case.

SUMMARY

An elderly male presented with traumatic vision loss. An optometric and ophthalmological examination revealed that no conventional vision or eye treatment was appropriate. Functional chiropractic treatment provided a return of the lost vision. This case is probably not as uncommon as the lack of literature would indicate. Behavioral optometrists have often been interested in the work of chiropractors and the resulting vision changes. It would seem appropriate to pursue this interest in the future with more interprofessional case histories and research.

REFERENCES

1. Palmer DD. The science, art and philosophy of chiropractic. Portland Publishing House, 1910.
2. Palmer MH. Chiropractic anatomy. The Palmer School of Chiropractic; Davenport, Iowa, 1923.
3. Pick T, Howden R. Gray's anatomy, 29th Printing. Running Press, Philadelphia, 1974; pp 726, 728, 729, 799-803.
4. Guyton AC. Textbook of medical physiology. W.B. Saunders and Co., London, 1964; pp 259-260.

Corresponding Author:
Greg Gilman O.D., FCOVD
Post Office Box 3590
Quincy, CA 95971
Date accepted for publication:
1/3/90