

Related Conditions: Weight Loss Improves Visual Function in IIH

Idiopathic Intracranial Hypertension (IIH) is a condition where the pressure of the cerebrospinal fluid in the brain is chronically elevated. IIH has a lot of overlap with Chiari and according to the Chiari1000 database, around 8% of Chiari patients also have IIH. One of the most worrisome symptoms associated with IIH is the impact it can have on vision. The elevated pressure can lead to swelling of the optic disc (papilledema), which is where the light sensing part of the eye meets the optic nerve. Up to 40% of IIH patients suffer from visual loss and up to 10% experience blindness. IIH can be treated medically with a drug that reduces the pressure or surgically by placing a shunt in the brain. What causes IIH is not well understood, but there is an association with elevated body mass index (BMI). In fact, IIH patients are often young adult women who are overweight.

With this in mind, a group of doctors from India wanted to see what the impact of guided weight reduction would be on the visual function and structural characteristics of IIH patients. To do this, the researchers followed 28 IIH patients who received medication and diet counseling for six months. Every six weeks the group was evaluated for visual acuity, color perception, and visual contrast. In addition, the optic nerve was assessed for parameters such as height and thickness and the papilledema was graded on a widely used clinical scale.

At the start of the study, 5 patients had a normal BMI, 10 were pre-obese, and 13 were obese. Two-thirds of the group had swelling that was graded at 2 or 3 (higher being worse). Over the six months, there was an average reduction of 1.27 in BMI, and 75% of the group had a papilledema grade of 1, while in another 13% the swelling had resolved completely. In addition, there was a significant improvement in visual acuity, color perception, and contrast. There was also a significant reduction in the height of the optic disc. Finally, it was noted that the patients who lost more weight had more improvement in their symptoms.

Ideally, this study would have compared a group of patients that received diet counseling and medicine to a group that received just medicine, but regardless their findings support other research which has shown the benefits of weight loss for IIH patients. Specifically, it appears that a 6% or more reduction in weight can result in a major improvement in the visual symptoms associated with IIH.

Source: Impact of weight reduction on structural and functional parameters of the optic nerve in idiopathic intracranial hypertension. Banerjee M, Phuljhele S, Saxena R, Sharma P, Misra V, Vibha D, Pandit AK. Eur J Ophthalmol. 2024 Feb 21:11206721241232038. doi: 10.1177/11206721241232038. Online ahead of print. PMID: 38380874.

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