

Retaining Very Low Vision

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Low vision refers to the significant visual impairment that can't be corrected fully with glasses, contact lenses, medication or eye surgery, technically visual acuity between 6/18 to 3/60. The WHO estimates that in 2012 there were 285 million visually impaired people in the world, of which 246 million had low vision and 39 million were blind [1]. Legal blindness is defined as best visual acuity of 20/200 or worse in the better eye, or a visual field constricted to 20 degrees or less [2]. These people lose the ability to drive safely, read quickly, watch television or view a computer screen. Major consequences of vision impairment include a child's ability to pursue education and an adult's ability for gainful employment. There is higher risk of death, risk of falls, difficulties with daily living and increased dependence. Management of low vision through the provision of good quality services, which are scalable, adaptable, cost effective and responsive to the population remains a VISION 2020 priority [3].

But people with very low vision (blind by definition) lose the ability to see around and move independently. The last three grades of visual acuity could be called as very low vision, they are perception of light, hand motion perception and counting finger close to face. By legal definition these patients are blind and have 100% disability. In fact, 85% of all these individuals have some remaining sight. But despite having similar disability, they are better than patients with absolute blindness or perception of light absent.

Because these people can be made partially independent for their biological functions in the familiar environment or at home by visual and non-visual clues. These activities include ability to see food and take it, can see water and drink it, let it be by holding it very close to eyes, can sign and see his signature. Moving around the house safely without assistance. Can go to toilet and use it without assistance properly.

So, if there is any potential of losing this vision, it should be retained by all possible means. Ophthalmologist has to be very optimistic in these cases and should try to retain even very low vision, which could be very important to a nearly blind patient. Most surgeons usually have a casual approach to treat such patients and they just tend to explain poor prognosis. The reason is high aspirations of some of these patients and others are reluctant to take risk of surgery for retaining vision, if improvement is not expected. As these patients often ask for better vision; it should be the duty of each eye care professional to tell the importance of the residual vision to these patients. They should be convinced to retain whatever vision they have, rather than hoping for better vision.

Patients with visual acuity of just perception of light could differentiate the day and night, which could be important for maintaining a biological clock of patient. Light perception enables a person to know whether a room light is on or off, or being able to walk towards a lighted lamp on a table in an otherwise darkened room. Patients with visual acuity of hand motion could easily appreciate the moving object and can make out whether it is approaching or receding away from him. Patients with visual acuity of counting fingers close to face are able to move around in familiar or semi familiar environment freely. He can clearly see his place of sitting and can see his food and can eat it. He can independently walk to bathroom and use toilet. And can see most objects in his vicinity crudely.

What needs to be explained to these patients is not to aspire for more vision, rather to retain whatever vision they have. Patients with advanced glaucoma with temporal island vision, IOP should be kept at target pressure by medical, laser or surgical measures. Do not delay

surgery in partially controlled cases. If such patient have associated cataract it should be operated. Patient with advanced retinal degeneration, macular atrophy if have associated cataract or glaucoma should be operated. Patient with optic atrophy having light perception, should be given all supplement antioxidants or injectable vitamin B complexes.

Patient with advanced diabetic retinopathy having residual vision, should be motivated to undergo laser therapy, vitrectomy or anti VEGF therapy. Patient with grossly scarred vascularised cornea with residual vision should be advised keratoplasty or keratoprosthesis. Patient with advanced panuveitis with associated cataract, glaucoma or corneal opacity should be operated. Low vision devices optical, non-optical, and electronic magnifying devices can make it possible to do a variety of everyday tasks. It has been seen that timely intervention in these patients, will retain there residual vision. With some adaptation in lifestyle, they can lead nearly an acceptable life.

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