Editorial

Editorial: cataract surgery in the legally blind

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In the United States, a patient is 'legally blind' if the best corrected vision in 'both eyes' is 20/200 (0.1) or less or the peripheral visual field is less than 20° from the central fixation (1). It could be from advanced glaucoma, opaque cornea, amblyopia, cataract, macular degeneration, severe retinitis pigmentosa, retinal detachment, optic neuritis, cone-rod dystrophies, and/or chorio-retinal degenerations, etc.

Legally blind are considered 'visually handicapped'. While some of these patients are 'functional' in their familiar surroundings, but most lose their 'independence' even in daily life activities. That has detrimental effect on their psychological wellbeing. They feel helpless and burden on their families and the society.

Agreed, there are some ocular pathologies we still cannot help with, but there are some treatable conditions, such as cataract, corneal pathology, and retinal detachment etc. Even glaucoma is treatable before it would lead to 'legal blindness'. The authors have used the term 'Brunescent cataract'. That prompted me to comment on the forgotten terminology elucidating the morphological appearance of the cataractous lens. We are very familiar with and use the terms 'cortical, nuclear sclerosis, posterior subcapsular cataract' regularly. If the cataractous lens is unoperated and let it progress, then it loses its transparency and translucency to become opaque lens. Opaque lens with best visual acuity of 'light projection' is termed 'Mature Cataract'. Further progression of the opacification of cataractous lens leads to 'Hypermature Cataract'. It is further of two types: (I) hydration and liquification of cortical part leads to white looking swollen lens (Cataracta Alba) also called 'Morgagnian Cataract' or (II) hardening of the nuclear component of the lens with dehydration of lens material and shrinking in size, appearing yellowish first, then brownish (Cataracta Brunescence) and lasty looking blackish (Cataracta Nigra). All these mature or hypermature type of cataracts are harder to remove and are associated with higher risk of intraoperative complications. Still, I believe, it becomes imperative to operate on these eyes, especially in the 'legally blind' because there is little to lose but much to gain. I applaud the authors to undertake this study that addresses an important issue of helping the 'legally blind'.

There is published and available literature that addresses the 'objective quantification' of visual improvement after cataract removal in 'legally blind' and discussing the potential complications of such surgery, especially in the elderly. Simultaneously, we find enough evidence about the 'subjective qualitative' improvement of vision and the benefits of cataract surgery on the 'legally blind'. Running parallel to this issue is the subject of cataract surgery in the 'elderly' (2-10).

In present day ophthalmology, our utmost efforts are to achieve 'perfect' or even 'better than perfect' vision, that too immediately after cataract surgery. But we have been ignoring a group of cataract patients who are legally blind and/or the elderly. Since my early days in ophthalmological career, I have been operating on 'legally blind' eyes, first in the 'eye camps' of India (11-14) and now in the United States. The 'smile' on the face of a legally blind patient who could 'see' after cataract surgery did not need to be 'quantified'. These patients were 'very happy' just to be able to see again, be functional, be independent and that too just with 'Aphakic Corrective Glasses'. Their needs and expectations were/are much different than those who

get surgery to correct their 20/40 (0.5) visual acuity to 20/20 (1.0).

Recently, I have operated on three patients who were 'legally blind' because of cataract along with severe glaucoma, retinitis pigmentosa, and bilateral macular degeneration. I could not improve their peripheral vision in the first two or the central vision in the third one, respectively, after cataract removal but regained functional vision. Their subjective comments explained the 'rewards' of operating on their eyes. One said, "*I am blown away by the brightness of colors and peripheral field and that I can see now*." Second one said, "*I cannot see to the sides, but my improved central vision has made me functional at home and outside*." These are anecdotal case reports and are not accepted in 'scientific' world, but that is exactly the point this manuscript and my comments want to make. In 'legally blind' and especially in the 'elderly', when hearing, mobility, and fragility are taking over life then recovery of vision is the only 'value' we can add to their lives.

Once again, I encourage to operate on the cataractous eyes of the 'legally blind' and 'the elderly' who may have other ocular or physical comorbidities.

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