

Posterior segment eye diseases: Prevalence, pattern, and attribution to visual impairment among adult Saudi population

Neurogenic optic atrophy

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To the editor:

We read with interest a recent publication in your journal titled “Posterior segment eye diseases: prevalence, pattern, and attribution to visual impairment among adult Saudi population” in the July (2019) edition of your journal [1]. We commend this worthy work and wish to congratulate the authors on the vast study conducted on a very understudied population. However, we would like to correct a statement that was made in error. In their discussion, Elmorsy and Rehman stated that they found that glaucoma was the most common cause of optic atrophy and that this was contrary to our publication in *Annals of Saudi Medicine* (2017) [2], which found that optic neuropathy was most frequently secondary to tumors. As authors of the latter paper, we would like to state in the strongest of terms that these two studies were different in purpose, design, patient populations and locations studied and thus are not directly comparable.

Elmorsy and Rehman studied diseases of the retina, choroid, and optic nerve. They included glaucoma, age-related macular degeneration (AMD) and diabetic retinopathy and their impact of visual disability. We did a hospital-based study of all cases of optic atrophy that presented to the neuro-ophthalmology clinic. As stated in the abstract and methods sections, all cases resulting from glaucoma or secondary to retinal disorders were excluded. With respect to populations studied, our study included children in whom the causes ranged from hereditary to neoplastic disorders whereas the above study was primarily of adults. Lastly, our study was conducted in a specialist referral center in Riyadh whilst the other study was of a free eye camp in the northeastern town of Arar. We concluded that the high frequency of tumors as the cause of optic atrophy likely represented a higher incidence of aggressive tumors coupled with poor recognition/acknowledgement of symptoms and limited access to appropriate centers, resulting in late presentations [2]. We noted that this was different from western populations, where ischemic and neuritis cases predominate as neurogenic causes of optic neuropathy. In a similar study of neuroophthalmic causes of optic neuropathy in India, Menon et al, likewise found that tumors were the predominant cause [3].

In the limitations section of our publication we noted that although Saudi Arabia has several tumors/cancers presenting with higher frequency and in a younger demographic, our particular findings may have been a reflection of the specialist hospital's role as a regional center of excellence and referral center for management of cancers in the Middle East North Africa (MENA) area. It draws to it a higher number of neoplastic cases than other hospital centers. Indeed, a study done at another center that included retina and glaucoma might have produced different results.

We suggested that a wider-ranging, prospective study that included other regions and hospital center types might yield more representative information about all causes of optic atrophy and other causes of visual incapacity in the Saudi population. Additionally, intercurrent medical history, drug intake, social (ethnicity, socio-economy, smoking, life-style, diet) and province of habitation (different geographic and environmental exposures), regional traditions/cultural mores and history of consanguinity should be included [2]. Such a study might help produce a foundation for the development of public health measures to prevent unnecessary visual impairment and blindness in this population.

References

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