Editorial

Myopia and Carpet Weaving

It has been stated that near work can cause myopia progression¹⁻³ and carpet weaving is included in that frame of work.

Carpet weaving is a meticulous and very fine handwork which is performed from a very near distance for hours and hours each day and for many years in life-time. A precise visual attention and concentration is needed in this job.

In this current issue of Iranian Journal of Ophthalmology, Yekta et al⁴ have investigated five workshops of carpet weaving, 269 carpet weavers in Mashhad, north-east of Iran and they claim that myopia is much more frequent among carpet weavers compared with the general population of Iran. In those five centers 67% of the carpet weavers had myopic eyes versus 3% of hyperopia.

In an investigation performed in Mashhad the prevalence of myopia in high school students was reported to be 24.1%.⁵ In a report concerning the elderly population in the same town the incidence of myopia was shown to be 27.2%.⁶

This very high percentage of myopia reported in this issue of the IrJO among carpet weavers (67% versus 24.1% of high school students and 24.1% of the elderly population at the same geographical area) raises two questions:

- 1. Is the near work as much determinant in changing the anatomy of the eye and developing such a high percentage of myopia among carpet weavers?
- 2. Are the carpet weavers initially have been selected among the myopic persons for this very fine handicraft? They must be able to see these very fine and thin fibers of cotton, wool, silk and to create such a fine and uniform knots, and this for hours and hours.

The answer can be found by a large-scale prospective study in which all the carpet weavers to have an ocular examination and refraction before being employed and during the years to come. So further studies are required for a more reliable conclusion.

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References

- 1. Saw SM, Zhang MZ, Hong RZ, et al. Near-work activity, night-lights, and myopia in the Singapore-China study. Arch Ophthalmol 2002;120(5):620-7.
- Wong TY, Foster PJ, Johnson GJ, Seah SK. Education, socioeconomic status, and ocular dimensions in Chinese adults: the Tanjong Pagar Survey. Br J Ophthalmol 2002;86(9):963-8.
- 3. Ip JM, Saw SM, Rose KA, et al. Role of near work in myopia: findings in a sample of Australian school children. Invest Ophthalmol Vis Sci 2008;49(7):2903-10.
- 4. Yekta AA, Fotouhi A, Hashemi H, et al. Relationship between refractive errors and ocular biometry components in carpet weavers. Iranian Journal of Ophthalmology 2010;22(2):45-54.
- 5. Ostadi Moghadam H, Fotouhi A, Khabazkhoob M, et al. Prevalence and risk factors of refractive errors among schoolchildren in Mashhad, 2006-2007. Iranian Journal of Ophthalmology 2008;20(3):3-9.
- 6. Yekta AA, Fotouhi A, Khabazkhoob M, et al. The prevalence of refractive errors and its determinants in the elderly population of Mashhad, Iran. Ophthalmic Epidemiol 2009;16(3):198-203.