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Mesopic pupillary state in type 2 diabetics without retinopathy: A review

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Background: It is known that the pupil diameter decreases under high illumination levels and increases under low illumination levels. Several reports showed changes in mesopic pupillary function in patients with diabetic retinopathy. There is little information however about mesopic pupillary changes in diabetics without retinopathy.

Purpose: To review pupillary size changes under mesopic luminance conditions in type 2 diabetics without retinopathy.

Methods: A literature search was conducted on pupillary size changes in diabetics without retinopathy. The search criteria considered the type of diabetes, luminance conditions under which the pupil diameter was measured, and the instrument used.

Results: There was a general consensus that diabetics show smaller pupil diameters compared to normal healthy subjects. The testing method and luminance conditions varied across studies. Pupil diameter changes were affected by the retinopathy progression. Little information was reported for mesopic pupillary changes in diabetics without retinopathy. Some studies specified the type of diabetes while others did not.

Conclusions: Care should be taken when comparing pupil diameter changes between studies related to the luminance level and type of instrument used. In this presentation, mesopic visual function data for type 2 diabetics without retinopathy will be presented, aiming to show its independency from pupil diameter.

Biography

Shroug M. Aldaham has graduated from Complutense University of Madrid (UCM), Spain with a PhD degree in Optics, Optometry and Vision (with distinction). She has a BSc (Hons) in Optometry from King Saud University (KSU), Riyadh, Saudi Arabia, and a Master of Science in Vision Science from the University of Waterloo, Ontario, Canada. She has joined the Optometry department at KSU as a demonstrator (an academic position that prepares for professorship) before joining the Master program in Canada. After her masters she returned to Riyadh and later joined the PhD program at UCM. Both of her Masters and PhD studies were Saudi government-funded research grants. She has a research experience in pediatric vision screening and visual function testing in diabetics and has published in international optometric and vision research meetings. Her research interests are pediatric and diabetic visual function.

Notes:

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