

Ophthalmological findings in myotonic dystrophy

Achados oftalmológicos na distrofia miotônica

Dear Editor,

We read with great interest the article by Ikeda et al. concerning ophthalmological findings in myotonic dystrophy (MD)¹.

We would like to thank the authors, because they cited a study we published in 2009, where we tried to understand the reasons for low intraocular pressure (IOP) in these patients. Our first goal was to check if this was a real hypotony or if it was related to an incorrect measurement of the IOP, as it is well known that Goldmann applanation tonometry can give incorrect measurements in cases of abnormal corneas². In that paper, we excluded the possibility that corneal biomechanical properties could alter the IOP measurements in MD patients. We found these patients had slightly thicker corneas compared to a normal population, so this could not explain the finding of the lower IOP, but should have given a higher measurement if the thickening was not related to a corneal edema. To exclude a corneal edema, we studied the endothelial cell characteristics, and we found them to be normal³.

For these reasons, as Ikeda et al. stated, we hypothesized that a low IOP could be related either to increased aqueous humor outflow or decreased aqueous secretion, but a complete pathophysiologic model to explain reduced IOP was not yet available.

Later, performing an echographic evaluation of the anterior segment of these patients, we found a detachment of the ciliary body, which may explain the low IOP values in MD⁴.

Based on these results, we tried to determine if a low IOP was also present in other kinds of muscular dystrophies, and we found that patients with facio-scapulo-humeral muscular dystrophy also have low IOP, but, contrary to patients with MD, they have thinner corneas. This could explain a different reason for the lower IOP measurement in this other group of muscular dystrophies⁵.

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References

1. Ikeda KS, Iwabe-Marchese C, França Junior MC, Nucci A, Carvalho KM. Myotonic dystrophy type 1: frequency of ophthalmologic findings. *Arq Neuropsiquiatr*. 2016;74(3):183-8. <https://doi.org/10.1590/0004-282X20150218>
2. Rosa N, Lanza M, Borrelli M, Palladino A, Di Gregorio MG, Politano L. Intraocular pressure and corneal biomechanical properties in patients with myotonic dystrophy. *Ophthalmology*. 2009;116(2):231-4. <https://doi.org/10.1016/j.ophtha.2008.09.001>
3. Rosa N, Lanza M, Borrelli M, Filosa ML, De Bernardo M, Ventriglia VM et al. Corneal thickness and endothelial cell characteristics in patients with myotonic dystrophy. *Ophthalmology*. 2010;117(2):223-5. <https://doi.org/10.1016/j.ophtha.2009.07.003>
4. Rosa N, Lanza M, Borrelli M, De Bernardo M, Palladino A, Di Gregorio MG et al. Low intraocular pressure resulting from ciliary body detachment in patients with myotonic dystrophy. *Ophthalmology*. 2011;118(2):260-4. <https://doi.org/10.1016/j.ophtha.2010.06.020>
5. Rosa N, Lanza M, De Bernardo M, Cecio MR, Passamano L, Politano L. Intraocular pressure in patients with muscular dystrophies. *Ophthalmology*. 2013;120(6):1306-7.e1. <https://doi.org/10.1016/j.ophtha.2012.12.046>

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