Home Tonometry in Pediatric Glaucoma: Parental and Physician Attitudes, and Clinical Indications

Yasmin P Mali MD, Derek P Bitner MD and Sharon F Freedman MD
Duke University Department of Ophthalmology, Durham, North Carolina

Methods

Objective

To evaluate clinical indications for home rebound tonometry in childhood glaucoma; and to assess provider and parental/patient attitudes towards this methodology.

Results

Survey of 100 ophthalmologists managing pediatric glaucoma revealed:

- 48% response rate
- 93% of respondents use Icare in their clinical practice
- 14% of respondents lend Icare for home tonometry
- Biggest barrier to home tonometry is tonometer cost (85%)
- Biggest benefit is improved ability to monitor IOP fluctuations (44%)
- Most (81%) believe home monitoring will improve pediatric glaucoma management
- 47% of respondents estimate that 16-30% of pediatric glaucoma patients would benefit from home tonometry

Survey of 150 parents of patients with glaucoma or patients* revealed:

- 55% response rate
- 29% of respondents were patients 18 years old or older*
- Mean age: 12 years (range <4 months - 34 years)
- 59% of patients had glaucoma for more than 5 years
- 45% of respondents have ≥ 5 IOP checks in the office per year
- 28% of respondents have used the Icare for home tonometry
- 84% of respondents would be interested in using the Icare at home to measure IOP in between appointments

Conclusions

- Home tonometry (short- and longer-term) can aid management of selected cases of pediatric glaucoma, both pre- and post-operatively.
- Pediatric glaucoma specialists are gaining experience with both rebound tonometry and home tonometry, but instrument cost represents a barrier.

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References

1. Bitner, D, & Freedman, SF. Long-term home monitoring of intraocular pressure (IOP) elevation/fluctuation not captured by clinic visits.1