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Joint Position Statement on the Use of Patented Microcurrent Technology for Dry AMD

The Canadian Ophthalmological Society (COS) and Canadian Retina Society (CRS) advise caution when considering a new microcurrent treatment for dry age-related macular degeneration (AMD). While early studies suggest it may help, there isn't enough long-term evidence to confirm its safety or effectiveness. Retinal specialists, given their extensive expertise in managing age-related macular degeneration, recommend that patients and doctors discuss the treatment carefully and understand its limitations before deciding.

Background

The Canadian Ophthalmological Society (COS) and the Canadian Retina Society (CRS) are committed to ensuring the highest standard of care for Canadians affected by eye diseases, including age-related macular degeneration (AMD). This position statement has been prepared by clinical and academic leaders in the field of ophthalmology and retina care, with extensive experience in the management of AMD and other retinal diseases. Collectively, these experts have treated thousands of Canadians with macular degeneration and have contributed to advancing research and clinical guidelines for this this blinding disease. Given the recent introduction of a patented microcurrent technology in Canada as a treatment for dry AMD, it is important to provide an evidence-based background and perspective on its use.

Overview of Dry AMD and Patented Microcurrent Technology

Dry AMD affects approximately 2.5 million Canadians, primarily those over the age of 50. This condition can lead to significant vision impairment, severely impacting daily activities. The patented microcurrent technology, approved by Health Canada in 2023, is intended to improve visual function in patients with dry AMD by using electrical stimulation. While we have not had direct clinical experience with this technology, our conclusions are based on the available data from clinical trials. It is essential that any new treatment for AMD meets rigorous standards to ensure patient safety and treatment efficacy. This research should include multicentered trials

involving diverse patient populations, adequate long-term follow-up, and clear reporting of outcomes to ensure safety and effectiveness.[1]

Our Position

The available clinical evidence supporting the use of this novel microcurrent technology is limited to a single site research study funded by the company promoting this technology with 43 treatment participants and 19 controls, and a 30-week follow-up period. While some improvements in visual acuity and contrast sensitivity were observed,[2] a sample size of this scale and the short duration of follow-up does not provide comprehensive data on its long-term effectiveness or broader applicability to a more diverse Canadian patient population. As such, more extensive, long-term multicentered clinical studies are needed to further evaluate this treatment's potential.

Additionally, while the trial data suggests no harm was caused to patients during the study period, the absence of long-term data leaves open important questions regarding the sustained benefits and safety of this treatment over time.

Cautions for Patients and Clinicians

We are aware that this patented microcurrent technology is currently being offered in many optometric clinics as a "proven" fee-based treatment option for dry AMD. The COS and the CRS strongly recommend that patients and clinicians approach the use of this technology with caution due to the lack of robust, long-term data on its effectiveness. **Because of the lack of long-term data, we do not currently support the use of microcurrent technology for dry AMD, whether through public funding or private fee-for-service models.** Patients and healthcare providers should engage in thorough discussions about the limitations of the current evidence. While treatment options for dry AMD are limited, it is crucial that patients are fully informed about the uncertainties regarding long-term outcomes with microcurrent technology and the need for further research.

Looking Ahead

As advocates for patient safety and evidence-based care, the COS and the CRS strongly support further research into innovative treatments for dry AMD. We recommend conducting multicentered randomized controlled trials with larger and more diverse participant groups to validate any potential benefits of microcurrent technology before widespread clinical adoption. Such studies should also include extended follow-up periods to better assess its efficacy and safety. Our organizations remain committed to ensuring that treatment decisions are guided by the best available evidence and will continue to closely monitor developments in this area.

Conclusion

In conclusion, while the introduction of patented microcurrent technology offers a new approach to managing dry AMD, further rigorous evaluation is needed to confirm its long-term effectiveness and safety. COS and CRS encourage both clinicians and patients to consider this treatment option cautiously, with a strong emphasis on informed discussions focussed on the limited available evidence regarding the potential benefits of patented microcurrent technology.

References

[1]American Academy of Ophthalmology. (20). *RCTs: The Gold Standard's Future*. Retrieved from https://www.aao.org/eyenet/article/rcts-the-gold-standards-future

[2]Parkinson KM, Sayre EC, Tobe SW. *Evaluation of visual acuity in dry AMD patients after microcurrent electrical stimulation*. Int J Retina Vitreous. 2023;9:36. https://doi.org/10.1186/s40942-023-00471-y.