



BioMed Research International

Special Issue on

Advances in Diagnostic Imaging Technologies to Evaluate the Retina and the Optic Disc

CALL FOR PAPERS

Diagnostic and therapeutic decisions based on the outcomes of imaging technologies have become a common procedure in ophthalmology. New devices and tools for evaluating the retina and the optic nerve head, such as spectral-domain optical coherence tomography, are widely used in clinical practice. These technologies provide objective, quantitative measurements and in vivo time images of ocular structures. The performance of imaging devices has been constantly improved, and therefore, the knowledge of their new possibilities, as well as the understanding of their advantages and limitations must be updated to optimize their management by clinicians.

We invite investigators to contribute original research articles that help update the knowledge in imaging technologies from a clinical approach. The risk of developing visual disability and blindness as a consequence of glaucoma or retinal diseases varies largely among affected individuals. Personalized testing strategies and tailored therapeutic interventions may help to effectively reduce visual impairment. We are particularly interested in articles describing novel tools and the role of optical coherence tomography to provide better care to patients. Nevertheless, we encourage authors to submit manuscripts concerning any method to evaluate the retina or the optic disc.

Potential topics include, but are not limited to:

- ▶ Applicability of imaging technologies for evaluating ocular tissues and structures (e.g. optical coherence tomography, scanning laser polarimetry, confocal scanning laser ophthalmoscopy)
- ▶ Design of new tools or adaptation of existing methods for the detection of specific ocular disorders
- ▶ Modifications of current techniques to improve the accuracy of the measurements (e.g. adaptive optics)
- ▶ Enhancement of image processing algorithms to optimize the diagnosis and management of ocular diseases
- ▶ Relationship of imaging studies to the pathogenesis of diseases affecting the retina and the optic disc
- ▶ Structural tests for diagnosing and monitoring glaucoma
- ▶ Optical coherence tomography in macular and retinal diseases
- ▶ Imaging of the optic nerve head in neuroophthalmology
- ▶ Intraoperative imaging of the retina and the optic disc
- ▶ Telemedicine based on imaging technologies for remote diagnosis of ocular diseases (e.g. diabetic retinopathy, retinal vein occlusions, glaucoma)

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Manuscript Due

Friday, 12 September 2014

First Round of Reviews

Friday, 5 December 2014

Publication Date

Friday, 30 January 2015