LS11-046 - The relation between retinal and optic nerve head parameters and circumpapillary retinal nerve fiber layer profile

Abstract

Measurement of retinal Nerve Fiber Layer (RNFL) is of major importance for early glaucoma diagnosis. However, its high variability in the normal population may lead to a wrong diagnosis. In order to determine an independent set of retinal and optic nerve head parameters that may be related with the distribution of RNFL thickness (RNFL profile), an automatic method of image processing will be developed. A multivariate model describing the relation between the retinal parameters and the RNFL profile will be developed and validated in an independent sample. In the future, the validated model opens the perspective of compensation for the intersubject variability of RNFL measurements. This will benefit the early diagnosis of Glaucoma.

Keywords:
retinal nerve fiber layer, retinal image analysis, intersubject variability, automatic vessel extraction, retinal parameters

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Further links to the persons involved and to the project can be found under
https://www.wwtf.at/funding/programmes/ls/LS11-046/