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Titolo	OCT in Central Nervous System Diseases : The Eye as a Window to the Brain / / edited by Andrzej Grzybowski, Piero Barboni
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- OCT Technique – Past, Present and Future -- Optic Disc Edema -- Compressive Optic Neuropathy -- Multiple Sclerosis -- Parkinson’s Disease -- Alzheimer’s Disease -- Friedreichs Ataxia and More -- Other Neurological Disorders: Migraine, Neurosarcoidosis, Schizophrenia, Obstructive Sleep Apnea-Hypopnea Syndrome (OSAHS) -- Hereditary Optic Neuropathies -- Trans Neuronal Retrograde Degeneration -- New OCT Technology in Neuro-Ophthalmology -- OCT and Pharmacological Treatment -- Animal Models in Neuro-Ophthalmology -- OCT in Glaucoma -- OCT in Amblyopia -- Conclusions.
Sommario/riassunto	This book reviews recent important advances in the use of optical coherence tomography (OCT) in order to analyze neurodegeneration within the retina through the quantification of axonal loss. Detailed information is provided on the role of OCT as a promising tool for the evaluation of disease progression in numerous neurodegenerative disorders and as a biological marker of neuroaxonal injury. The disorders considered include multiple sclerosis, Parkinson’s disease, Alzheimer’s disease, intracranial hypertension, Friedreich’s ataxia,

schizophrenia, hereditary optic neuropathies, glaucoma, and amblyopia. Individual chapters are also devoted to OCT technique, new OCT technology in neuro-ophthalmology, OCT and pharmacological treatment, and the use of OCT in animal models. As well as being a valuable tool for diagnosis of many retinal diseases and monitoring of surgical and medical treatment, OCT allows study of the retinal nerve fiber layer (RNFL) containing the axons of the retinal ganglion cells, which form the optic nerves, chiasm, and optic tracts. Since retinal axons are nonmyelinated until they penetrate the lamina cribrosa, the RNFL is an ideal structure for visualization of any process of neurodegeneration, neuroprotection, or regeneration. It is for this reason that OCT has been applied in various areas of neurology over the past decade, becoming a hot topic and generating great enthusiasm among neurologists and ophthalmologists. By documenting the ability of OCT to provide key information on CNS diseases, this book illustrates convincingly that the eye is indeed the “window to the brain”.