

4th International Conference on Clinical & Experimental Ophthalmology

July 14-16, 2014 DoubleTree by Hilton Baltimore-BWI Airport, USA

Different optic neuropathies and novel treatments

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The aim of this workshop is to discuss the diagnosis, treatment and follow-up of different optic neuropathies. Meanwhile images from the new technology devices like OCT and the conventional machines like Perimetry will be shown. Also MR images of the orbit and brain and images of optic nerve problems will be the subjects of the main topic. There are some new developments in the treatment of the optic neuropathies and different ideas about novel treatments will be shared.

OPTIC NEUROPATHIES:

- Optic neuritis (demyelination of the optic nerve): Acute, painful vision loss. Occurs mainly in women within the age range of 18- 45. Responds well to high dose intravenous steroids. Approximately 1/3 of the cases are seen with disc edema, 2/3 are retrobulbar. Retrobulbar cases progress to multiple sclerosis (MS) more frequently. The possibility of a woman patient to develop MS after isolated optic neuritis is about % 70 in ten years. The progression of optic neuritis to MS can be detected by OCT.
- Anterior ischemic optic neuropathy (non- arteritic): Acute, painless visual loss due to a stroke on the optic nerve head. Disc edema is present. Patients usually have hypertension or diabetes. Visual field defect is altitudinal. Cup to disc ratio is small. No definite treatment. Intravitreal injections (triamcinolone and anti- VEGF) may be tried in acute cases.
- Traumatic optic neuropathy: Occurs after a direct or indirect trauma to the optic nerve. Steroids are not recommended if there is head concussion. Surgery of the optic canal to decompress the nerve may be tried in early stages. There are reports about success with intravenous erythropoietin.
- Toxic optic neuropathy: Central, bilateral visual loss. There is a new report about improvement after methanol toxicity with the combination of erythropoietin and steroids.
- Radiation optic neuropathy: Bilateral visual loss months or years after radiation therapy of a brain tumor. There are new reports of improvement of vision with intravenous bevacizumab therapy.
- Leber's optic neuropathy: Painless, bilateral visual loss with central scotomas. Inherited by the maternal mitochondrial DNA mutations: m.11778, m.14484, m.3460. Idebenone treatment in early stage Leber's disease have been shown to be beneficial.
- Chronic relapsing inflammatory optic neuropathy: Steroid sensitive optic neuropathy which recurs after steroid withdrawal. Long term steroids or other immunosuppressive agents are used.

There are other optic neuropathies with inflammatory, infectious, etc. etiology which can be discussed, too.

Biography

A. Umur Kayabasi is a graduate of Istanbul Medical Faculty. After working as an assistant in Ophthalmology, he completed his clinical fellowship program of Neuro-ophthalmology and electrophysiology at Michigan State University in 1995. After working as a consultant neuro- ophthalmologist in Istanbul, he worked at Wills Eye Hospital for 3 months as an observer. He has been working at World Eye Hospital since 2000. He has chapters in different neuro- ophthalmology books, arranged international symposiums, attended TV programs to advertise the neuro- ophthalmology subspecialty. He has also given lectures at local and international meetings, plus published papers in neuro ophthalmology.

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