SOCIETY TIDINGS

Proceedings of the 35th Annual Upper Midwest Neuro-Ophthalmology Group Meeting, July 25, 2014, Chicago, Illinois, USA

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The 35th annual meeting of the Upper Midwest Neuro-Ophthalmology Group (UMNOG) was held on July 25, 2014, at Northwestern University, Chicago, Illinois. Neuro-ophthalmologists from Wisconsin, Ohio, Missouri, Michigan, and Illinois, including two fellows and one resident physician, continued the tradition of bringing forth interesting cases and novel topics in the field of neuro-ophthalmology. Once again, Dr. Ivy Dreizin, University of Wisconsin, Madison, Wisconsin, chaired the meeting and guided the discussions.

Dr. Walter Jay from Loyola University, Maywood, Illinois, commenced the meeting with a discussion regarding technological resources for low-vision patients. Several options built into smart phone and tablet operating systems were presented, including voice activation features to operate smart phones and tablets and techniques to improve screen readability. The ease of access and relatively low cost of phones and tablets were highlighted.

The second talk, presented by Dr. Susan Benes of Columbus, Ohio, was an intriguing clinical vignette of a 41-year-old woman who acquired a zoonotic parvovirus B19 infection that presented initially with the uveo-meningeal syndrome. She then developed bilateral optic neuropathy and limbic encephalitis and was found to have *N*-methyl-D-aspartate (NMDA) receptor antibodies in the cerebrospinal fluid (CSF), but not serum. This case highlighted the importance of non-teratomatous triggers for the NMDA limbic

encephalitis syndrome and the presence of an optic neuropathy at the onset, which has not been previously reported.

Dr. Heather Moss from University of Illinois at Chicago, Chicago, Illinois, presented her research on inner and outer retinal dysfunction in idiopathic intracranial hypertension (IIH). Full-field electroretinogram (ERG) and pupillary light response were used to assess eight undertreated patients with IIH. Rod pathways were more frequently affected than cone pathways. The mechanisms of dysfunction remain to be elucidated.

Dr. Kristopher Kowal, neuro-ophthalmology fellow from University of Michigan, Ann Arbor, Michigan, presented a case of “myasthenia plus” syndrome in a patient with thymoma and extremely elevated levels of nicotinic acetylcholine receptor antibodies in his serum. In addition to ptosis and progressive ophthalmoplegia, he had proximal gut paralysis, with pseudo-obstruction on computed tomography scan. He did not have ganglionic acetylcholine receptor antibodies in his serum. The gut paralysis was attributed to cross-reactivity of high-titre skeletal muscle antibodies to parasympathetic nicotinic intrinsic gut ganglia.

Dr. Robert Tomsak of Kresge Eye Institute Detroit, Michigan, presented a case of weightlifting-induced retrobulbar unilateral optic neuropathy with acute vision loss to hand motions. Imaging showed an expanded sinus mucocoele compressing both optic

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nerves. The fellow eye subsequently became involved and vision in both eyes normalized following intravenous (IV) steroids and mucocoele decompression. A review of the literature included reports of similar presentations of optic neuropathies after other Valsalva manoeuvres as well as in scuba divers and pilots.

Dr. Edward Cohn of Royal Oak, Michigan, described a case of double vision due to sixth nerve palsy and a Horner's syndrome following tooth extraction. This iatrogenic condition typically results from either direct puncture of the inferior orbital fissure via the greater palatine foramen or anaesthetic diffusion via venous collaterals.

Dr. Nicholas Volpe of Northwestern University, Chicago, Illinois, presented a fascinating summary of ocular manifestations of amyotrophic lateral sclerosis (ALS). Eyelid opening apraxia and saccadic intrusions are attributed to the frontal lobe degeneration often associated with ALS. A recent novel observation is that of ubiquitin inclusions in retinal plexiform layers and the subretinal pigment epithelium co-localizing with p62 protein staining in a patient with ALS. This adds to growing data regarding afferent and efferent visual system involvement in ALS.

Dr. Jonathan Trobe of the University of Michigan, Ann Arbor, Michigan, presented a "Cautionary Tale": a case of intracranial hypotension causing headache and sixth nerve palsy following multiple spinal taps. A review of magnetic resonance imaging (MRI) findings suggestive of intracranial hypotension was very instructive.

After lunch, the afternoon program resumed with two fascinating cases presented sequentially by Dr. Maxwell Stem, second-year ophthalmology resident and Dr. Lulu Burstyn, neuro-ophthalmology fellow, both of University of Michigan, Ann Arbor, Michigan. These cases were similar in many ways. Dr. Stem's case was of rapid loss of vision to light perception in both eyes in a postpartum woman with hypertension. Dr. Burstyn's case was of bilateral finger counting vision followed an H1N1 meningo-encephalitis. In both cases, Purtscher's retinopathy (diffuse exclusively small vessel vasculitis) was seen but was felt to not account for the severity of vision loss. Neuroimaging in each case revealed bilateral

lateral geniculate nucleus (LGN) pathology. Dr. Stem's case was diagnosed as a thalamic variant of posterior reversible encephalopathy syndrome and had near full recovery of vision following control of hypertension. Dr. Burstyn's case showed that bilateral ischaemic haemorrhagic lesions in the LGN attributed to post-H1N1 infectious vasculopathy. It was captivating to see these two cases of bilateral retinal and LGN pathology from two completely different causes.

Dr. Sangeeta Khanna of St. Louis University, St Louis, Missouri, presented a case of delayed-onset sixth nerve palsy 5 days following an all-terrain vehicle accident with urgent thoracolumbar vertebral body repair. Head computed tomography (CT) showed thickened dural venous sinuses, and an MRI then displayed pachymeningeal enhancement. This case highlighted the lesser known CT findings of a CSF leak and intracranial hypotension.

In the final presentation of the afternoon, Dr. Ivy Dreizin of the University of Wisconsin in Madison shared a case of a woman with multiple midline meningiomas causing superior sagittal sinus compression who had papilloedema without vision loss. Management options were discussed, including the risks of directly intervening on the meningiomas versus other interventions to control intracranial pressure.

The inaugural "flea circus" concluded the day. This consisted of many of the faculty presenting a short case with a single key image or clinical pearl. All of these mini-cases led to high yield discussion on various topics.

Thanks go to Dr. Nicholas Volpe for hosting the event at Northwestern University once again. We also thank all the attendees for bringing forth their most intriguing cases from the past year and from the active participation and contributions of everyone's experience in the discussions around the presentations. Those interested in attending next year or participating in UMNNOG's mailing list should e-mail Dr. Ivy Dreizin at ivy.dreizin@uwmf.wisc.edu or Dr. Heather Moss at hemos@uic.edu.

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