Neuro-Ophthalmology

Chairperson: J Gopwani

Recommendations for Imaging of Horner Syndrome in Adults and Children

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Method: A review of the literature regarding imaging of Horner syndrome in adults and children was performed and practical recommendations for imaging provided. A differential diagnosis according to localization and frequency will be provided and published studies will be referenced and outlined.
Results: Protocol for evaluating adult patients with Horner syndrome of less than a year's duration includes pharmacological confirmation, chest imaging, emergent vascular neck imaging and directed imaging in localizable cases. Protocol for evaluating children with Horner syndrome of less than a year's duration includes pharmacological confirmation, examination for neck, upper chest and axillary masses, combined head, neck and chest imaging and urine vanillylmandelic acid (VMA) and homovanillic acid (HVA).
Conclusion: Recommendations for imaging vary between observation and an aggressive approach with imaging of the entire sympathetic chain. Based on recent studies, sensible algorithms have been suggested by various experts. Imaging to some degree should be performed in a directed fashion, with standard chest X-ray and carotid ultrasound being inadequate compared to computed tomography and magnetic resonance imaging.

Sequential Non-arteritic Anterior Ischaemic Optic Neuropathy in a Young Patient

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Non-arteritic anterior ischaemic optic neuropathy (NAION) is the most common acute optic neuropathy affecting the elderly. It is usually diagnosed in individuals over the age of 50 years, but can be seen in younger patients where it may represent a diagnostic dilemma. Non-arteritic anterior ischaemic optic neuropathy typically presents as painless unilateral vision loss, often discovered on arising. Less frequently, it involves both eyes and may present either sequentially or simultaneously. Multiple risk factors have been described including a small crowded disc, disc drusen, hypertension, diabetes mellitus and obstructive sleep apnoea. Thrombophilia has been reported in some patients, but there is no unanimity of thought on its role in precipitating NAION. We present a 46-year old male with a history of rapid unilateral vision loss associated with discomfort on eye movements. Seven years previously, he had been diagnosed with "papilloedema" on the contralateral side and his past medical history included two thromboembolic episodes involving his extremities. Work-up revealed multiple previously undiagnosed risk factors for NAION including diabetes, obstructive sleep apnoea and small crowded nerve heads. Haematologic evaluation did not reveal any unequivocal predisposing risk factors. On review of the patient's history and clinical course, a diagnosis of NAION was made and he was referred for management of his systemic contributing factors. Non-arteritic anterior ischaemic optic neuropathy in young patients is unusual but well described and risk factors should be searched for in individuals presenting with rapid vision loss. Therapeutic options are limited and of uncertain value, but work-up may reveal systemic risk factors requiring treatment.