Wallenberg’s Syndrome

Abstract

The following is a case report involving a 43-year-old white male who presents with intermittent binocular diplopia, ipsilateral Horner’s syndrome, conjugate torsional nystagmus and oscillopsia after a Left Vertebral Artery stroke.

Case Report

I. Case History
   A. 43-year-old white male
   B. CC: Intermittent binocular diplopia, unequal pupil size, and a drooping left lid
   C. Hyperlipidemia, vitamin D deficiency, smokes one pack per day, congenital red-green color deficiency, farsighted as a child - no longer wears correction
   D. Warfarin

II. Pertinent findings:
   A. BCVA: 20/20 OD, 20/20 OS, variable cover test results, conjugate torsional nystagmus, saccadic dysfunction, Horner’s Syndrome OS, skew deviation, habitual head tilt
   B. Contralateral paraesthesia of body, ipsilateral paraesthesia of face, dysphasia
   C. CT scan indicating stroke of the left vertebral artery affecting the Left Medullary Olive and the Left Inferior Cerebellum

III. Differential Diagnosis
   A. Brainstem tumor
   B. Brainstem infarct

IV. Diagnosis and Discussion
   A. Wallenberg’s Syndrome (Lateral Medullary Syndrome)
      1. Classic presentation overview
      2. Relevant statistics
   B. Discussion (Signs and Symptoms of Wallenberg’s Syndrome)
      1. Anatomy of location of lesion and affected neurological structures
         a) Brainstem blood supply &
      2. Ipsilateral Horner’s Syndrome
         a) Pathway and considerations
      3. Skew Deviation + Ipsilateral head tilt = Ocular Tilt Reaction
         a) Clinical findings, Parks 3-Step and considerations
         b) Anatomy of ear, semicircular canals
         c) Location of lesion & reason for head tilt
         d) Ipsilateral head tilt to relieve symptoms
4. Conjugate Torsional Nystagmus, Oscillopsia & Vertigo
   a) Clinical presentation, symptoms, and underlying cause(s)
   b) Pathway of vestibular nerve, relation to ocular movements
5. Systemic findings/Neurological pathways affected
   a) Ipsilateral paraesthesia of face* (Hallmark)
   b) Contralateral paraesthesia of body* (Hallmark)
   c) Ipsilateral weakness of body
   d) Dysphagia

V. Treatment, management
   A. Eye patch
   B. Additional testing indicated for complete assessment
   C. Referral to neuro-ophthalmology
   D. Considerations for management
   E. Bibliography
      1. Nolte, John, and John W. Sundsten. The Human Brain: An Introduction to Its 
      2. "Module - Autonemics of the Head and Neck." Module - Autonemics of the 
         modules/head_autonemics_module/autonemics_05.html>.
         Print.
      6. Adam, Cohen B., MD, PhD, and Misha L. Pless, MD. Neurology Board 
         Part 3.
      7. Dieterich, M., and T. Brandt. "Functional Brain Imaging of Peripheral and 

VI. Conclusion
   A. Review of hallmark signs of Wallenberg’s Syndrome
      1. Dysphagia
      2. Crossed paraesthesia
      3. Ipsilateral Horner’s
      4. Ipsilateral habitual head tilt
      5. Conjugate Torsional Nystagmus

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