VESTIBULAR PAROXYSMIA

By Hariharan Venkataraman

Presentation

- Described as disabling positional vertigo by Jannetta in 1975.
- They present with symptoms of short attacks of vertigo which usually last for up to 1 minute.
- The attacks may be accompanied by symptoms such as tinnitus, hypo-hyperacusis and nystagmus.
- Hemi-facial spasms can also be seen along with this if the pathology is within the internal acoustic meatus.
- The attacks are usually spontaneous but can also be precipitated by hyperventilation and certain head positions.

Epidemiology

- Exact prevalence is unknown (probably about <1 in 2000 people)
- Male:Female ratio is 2:1
- Seems to have 2 peaks in the frequency of distribution with respect to age – One peak at an early age and other between 40-70 years of age.

Pathogenesis

- It is assumed that the short attacks of vertigo are triggered by ephaptic discharges.
- Potential causes for nerve injury are focal irritation by a blood vessel, tumor or cyst compression, demyelination, trauma and unidentified causes. The most common cause is neurovascular cross-compression, involving the AICA.

Diagnostic Criteria

- At least ten attacks of spontaneous spinning or non-spinning vertigo
- Duration less than 1 minute
- Stereotyped phenomenology in a particular patient
- Response to a treatment with carbamazepine/oxcarbazepine
- Not better accounted for by another diagnosis.

Probable Diagnosis

- At least five attacks of spinning or non-spinning vertigo
- Duration less than 5 minutes
- Spontaneous occurrence or provoked by certain head-movements
- Stereotyped phenomenology in a particular patient
- Not better accounted for by another diagnosis.

Management

- Diagnosis – It is mainly clinical. Steady state MRI and MRA can demonstrate neurovascular compression, and can rule out MS plaques, Infarction and CPA tumor
- Treatment is mainly Carbamezapine (200-800mg/day) or Oxcarbazepine (300-900mg/day). Microvascular decompression is reserved for Intractable cases
- Differential diagnoses include BPPV, Vestibular migraine, paroxysmal brainstem attacks and Tumarkin's otolithic crisis

References

- 1. Jannetta PJ, Moller MB, Moller AR. Disabling positional vertigo. N Engl J Med 1984; 310: 1700-1705.
- 2. Brandt T, Strupp M, Dieterich M. Vestibular paroxysmia: a treatable neurovascular cross-compression syndrome. J Neurol. 2016;263:0–6. doi: 10.1007/s00415-015-7973-3.
- 3. Strupp M, Lopez-Escamez JA, Kim J, Straumann D, Jen J, Carey J, Bisdorff A, Brandt T, **Vestibular paroxysmia: Diagnostic criteria**. *Journal of Vestibular Research, Volume 26 (2016), Numbers 5-6, pp. 409-415*