Clinical Evaluation of Vertigo

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Disclosures

- No financial, personal nor academic COI
- Presentation solely based on established published clinical norms:
  - Brazis et al: Localization in Clinical Neurology
  - Bradley et al: Neurology in Clinical Practice

Objectives

- To achieve a safe and practical approach to assessment of this common C/O
- To recognize "Red Flags", when/where to refer, and what level of urgency (ER, SRAU, routine office ENT/neuro referral)
- When appropr., to safely perform Head Repo Manoevre in the office

Typical Case

- 60 y.o. female presents with "dizzy spells"
- Paroxysmal onset in bed after a day at the hair salon
- True sensation of motion, worse on right side, settles at rest, recurs upon sitting up
- No tinnitus, hearing loss, brainstem sx.'s
- Several brief prior episodes of vertigo in past years

Clinical evaluation of Vertigo

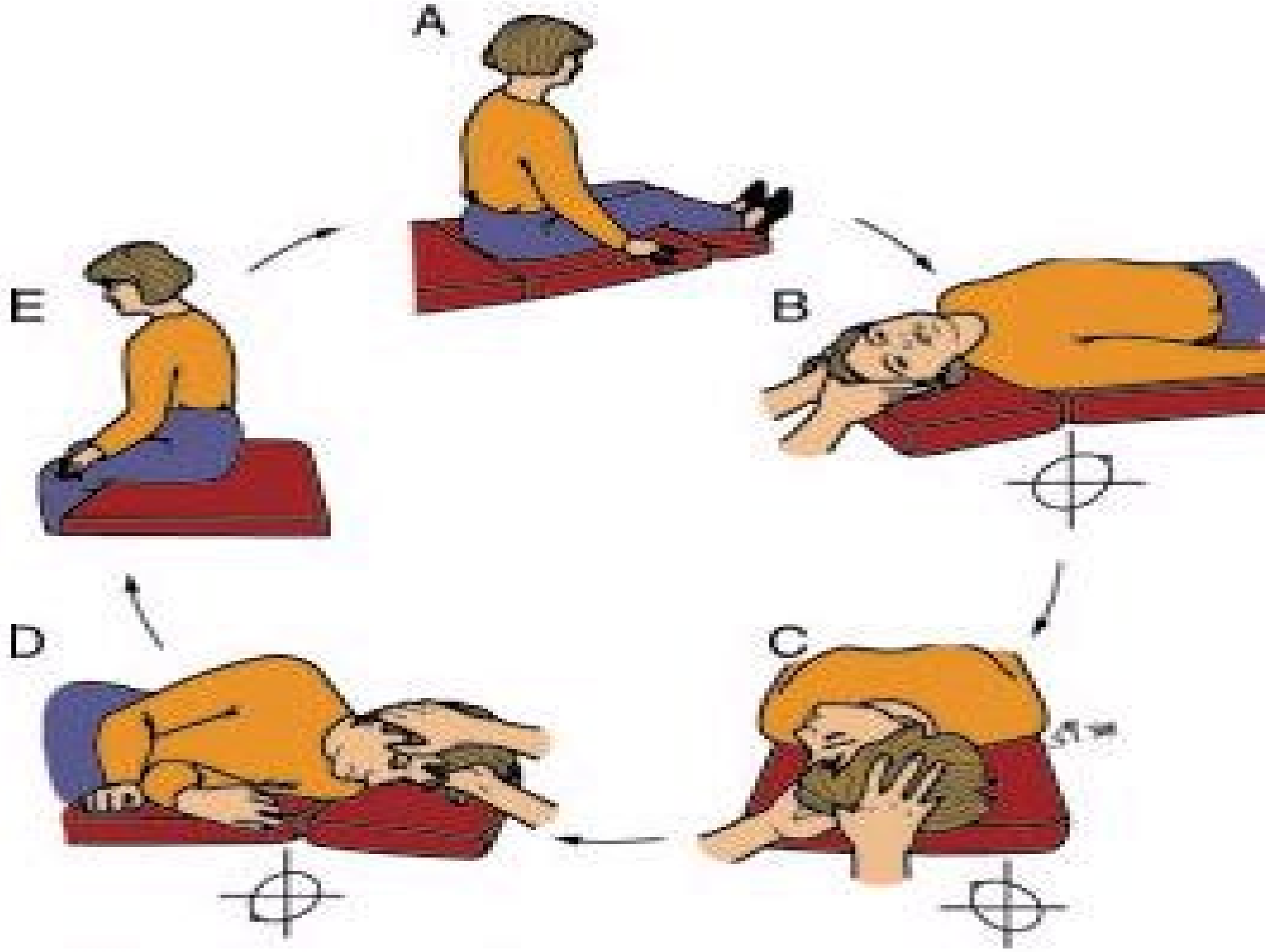
- Focussed history:
  - Define sx's: true vertigo vs pre-syncope vs other (migraine, seizure). "Dizzy" is not helpful
  - If true vertigo, is it acute or chronic, positional, associated sx's (neck pain, auditory sx's, N/V, speech, ataxia, sensory sx's, diplopia,)

Diagnostic considerations

- Highly age specific
- Under age 50 consider MS, neck dissections, autoimmune. BPV over-diagnosed in this agegroup.
- Over age 50 consider stroke, hemorrhage, tumor. BPV under-diagnosed in this agegroup.
- Vestibular migraine and labrinthitis overdiagnosed in all ages!

Focussed clinical exam

- Resting BP, ? postural changes
- Eye movements (palsy, nystagmus)
- Gait, cranial nerve exam
- Rombergs???
- Hallpike manoeuvre?


A
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Physical Exam

- Currently asymptomatic
- BP lying/standing, pulse rate normal
- Limb exam, gait, CN's all normal
- Hallpike manoevre illicits horizontal/rotatory nystagmus on right side down, fast phase to left, fatigues after 30 seconds, reproduces spinning (vertigo) to left. Settles with left side down (Eply, or HRM)

Diagnostic conclusions: peripheral vs. central vertigo

- Peripheral:
  - More severe
  - Paroxysmal
  - Fatigues
  - Horizontal/rotatory nystagmus
  - Otherwise normal exam
  - Often prior hx same
- Central
  - Chronic, often low grade
  - Progressive
  - Unremitting
  - Non-fatiguing
  - Pathological nystagmus
  - Associated signs/sx's

Treatment for BPV

- Particle Repositioning Manoevre (Epley) for BPV. May require several attempts
- In this uncomplicated case, imaging not required urgently, but should have non-urgent MRI CP angle
- Antivert/Serc for less severe attacks

Red Flags

- If acute and/or new onset vertigo with features not typical of BPV (unremitting, younger age or older with vascular risks, neck pain/recent neck adjustment, brainstem/cerebellar sx's/sx's):
  - Don't perform Eply Manoevre
  - Send to ER, Pt should have CT/EVT protocol. If CTA negative pt should then undergo MRI, and admit until sx's settle or other pathology ID'ed. If exam suggests ischemic event, treat with stroke protocol.

Pearls/Personal observations

- BPV under-diagnosed in >50 yo
- BPV over-diagnosed in <50 yo
- Vestibular migraine over-diagnosed in every age group!
- Beware the trap of medical hubris/dogmatism! Bedside vertigo assessment is imperfect, not a substitute for high quality imaging.
- So?? Image everyone, timing is discretionary.

Conclusions

- Use the Epley (HRM) Manoevre for tx. of BPV, it works.
- Urgent assessment with CT/CTA/MRI required for acute atypical or unremitting vertigo. Tx paradigms are diagnosis-specific, so if in doubt clinically call neuro on call, or send to ER.
- Chronic vertigo can generally be managed on non-urgent OP referral basis

Thankyou

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