

Vertigo in the ED

1. Peripheral or Central?

Peripheral Vertigo: is annoying but normally benign

Central Vertigo: can herald devastating problems

Indicators of Peripheral and Central vertigo

Indicator	Peripheral	Central
Onset	Sudden	Insidious
Course	Paroxysmal	Continuous
Intensity	Maximum initial	Mild
Duration	Min-Hrs	Days-Weeks
Vertical Nystagmus	No	Yes
Affect of Movement	Significant	Mild-None
Tinnitus/Deafness	Common	Rare
Other Neurology	Absent	Present
Walking	Able	Falls, V. unstable
HINTS Exam	All Peripheral	Any Central

2. Causes

Causes of vertigo

	Duration	Auditory	Central/Periph.
BPPV	Seconds	No	Peripheral
Vest. Neuritis	Days	No	Peripheral
Meniere's	Hours	Yes	Peripheral
Perilymphatic fistula	Seconds	Yes	Peripheral
Labyrinthitis	Days	Yes	Peripheral
Acoustic neuroma	Months	Yes	Peripheral
TIA	<24hr	No	Central
Stroke	Days	No	Central
Migraine (Vest.)	Hours	No	Central

3. Treatment

Symptoms

Prochlorperazine tablets 5-10 mg or buccal 3mg tds

Prochlorperazine injection 12.5 mg im

betahistine 16mg tds (most effective in Meniere's)

Habituation

Identified dizziness-provoking movements

Repeat them: five times in a row and twice a day

Helps to achieve vestibular compensation.

HINTS Exam

3 parts to the exam - video at

<http://emcrit.org/misc/posterior-stroke-video/>

Head impulse test

Rapid passive rotation of head while patient fixes on your nose

- Fixes on nose (central/normal)
- Eyes Correct (periph)

Nystagmus

- Bilat/Vertical (central)
- Horiz. Unilat (periph)

Test of Skew

Repeated cover test of eyes while fixed on nose.

- Eyes move (central)
- Eyes steady (periph)

Result

Any central features would indicate a central vertigo

Caution!!

Only valid if patient dizzy at time. As head impulse test will be normal/central if not dizzy.

Accuracy

Any central features, is more sensitive than MRI.

Sensitivity 96-100%

Specificity 85-98%

4. F/U or Admission

Peripheral: Most can be F/U by GP or ENT clinic.

Central: Admission +/- imaging. D/W radiology MRI best but CTA may be appropriate.