Overview of Examination of the Dizzy Patient

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Goals of the Exam
- Quantify functional status
- Identify medical problems
- Quantify vestibular deficit
- Quantify neurological deficit
- Identify psychological problems

Strategy of the exam
- Order for your convenience
  I. Standing
  II. Sitting
  III. Frenzels
  IV. Special
- Save potentially disturbing tests (e.g. vestibular testing) for the end
- Expand exam as needed based on history or previous examination

I. Standing
- Gait and Romberg
- Motor power in lower extremities
- Blood pressure/Pulse standing

Motor power
- Is patient’s unsteadiness due to weakness?
  - Stand on heels and toes
  - Deep knee bend

This is eyes-closed regular Romberg.

Normal persons should be able to stand in ECTR for 6 sec.

Head extended ECTR for 6 seconds is in upper 25th percentile
**Blood pressure/Pulse**
- Measure BP/pulse
- standing

**II. Sitting exam (without goggles)**
- Cranial Nerve exam
- Upper ext. Neurological, DTR, Toe signs
- Vibration at Ankle

**Essential Cranial Nerves**
- Vision
- Oculomotor
- Hearing

**Vision**
- Visual acuity
  - Is patient (nearly) blind?
  - Can patient see with both eyes?

**8th nerve: Dynamic Illegible ‘E’ test (DIE test)**
- Distance vision with head still
- Distance vision with head moving
- Normal: 0-2 lines change.
- Abnormal: 4-7 lines change

**Oculomotor**
- Does patient have double vision, nystagmus?
- Can patient track?
- Range, alignment and Gaze
- Saccades
- Pursuit
Gaze Testing

- Move finger to the limits of lateral gaze (bury sclera) – if can’t bury, may have oculomotor palsy
- Move finger to limits of vertical gaze
- Do eyes reach end-gaze?
- Is there end-gaze nystagmus?
- Is there rebound nystagmus?

Gaze nystagmus

- Alexanders Law
- Rebound

Hearing -- 8th nerve

- Screen Hearing
  - Rubbed fingers (high frequencies)
  - Whisper test (alternative)
  - Watch test (alternative)
  - Tuning forks (best but slow)

Motor Power

- Motor power
  - Heels, Toes, Deep knee bend, grip, pronator sign
- Deep tendon reflexes
  - Al, KJ, Biceps
- Babinski sign

Babinski Sign

Myelopathy
including cervical v.
Stroke

Coordination

- Finger to nose (FTN), fine finger movements
- Rapid alternating movements (RAM)
**Movement Examination**

- Tremors
  - Resting (Parkinson’s)
  - Postural (Essential tremor)
  - Intention (Cerebellar)
- Tone
  - lead pipe rigidity (Parkinsons)
  - spasticity (Upper motor neuron)

**Sensory Examination**

- Vibration sense (ankles)

**Video Frenzel Goggles**

- Inexpensive (about $500)
- Portable – take on the road
- A little limited – can’t do vibration, head-forward or cross-cover
- Can get hot, bulbs burn out and break

**Optical Frenzel Goggles**

**Spontaneous Nystagmus Test**

- Observe nystagmus in light and dark
  - Acute vestibular disorders have strong horizontal “jerk” nystagmus.
- Many other types of nystagmus (to be shown later)

**Vibration test**

- Method: Apply 60-120 Hz vibration to SCM, first one side, then the other
- Shower massagers work well for this and are inexpensive.
- Video frenzel goggles – optical frenzels don’t work very well
- Compare nystagmus before and during
Vibration Induced Nystagmus

- Unidirectional horizontal nystagmus strongly suggests contralateral vestibular lesion.

Head-shaking test

- Method: 20 cycles of horizontal head rotation
- Frenzel goggles to monitor nystagmus prior to and following head-shaking.
- Positive – substantial change in nystagmus following head-shaking. Usually beats away from bad ear.

Positional Testing

- Dix-Hallpike testing
  - For BPPV
- Situational testing
  - Lateral canal
  - Head vs. Body position testing (prone)

Tests for Pressure sensitivity

- Valsalva test
  - 10 seconds of exhale against closed glottis (to increase CSF pressure)
- Tullio test
  - Brief loud noise

Situational Tests: Hyperventilation

- 30 seconds of brisk HVT
- Exam for change in nystagmus
  - Irritable vestibular nerve
  - Seizure (very rare)
  - Anxiety (dizzy, no nystagmus)

More details


More movies

www.dizziness-and-balance.com