The Neurological Exam

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Dr. Katzman has nothing to disclose
Examination of the Central Nervous System

After this session, participants will be able to:

1. Understand importance of patient examination of Central Nervous System for pain patients.

2. Learn the basics of actual Central Nervous System exam skills.

3. Understand how the examination of Central Nervous System, can help with differential diagnoses of patients suffering from pain.
THE NEUROLOGICAL EXAMINATION

OUTLINE

1. Mental Status
   Attention
   Orientation
   Naming
   Language
   Abstraction
   Reading
   Writing
   Memory
   Frontal Lobe Systems Tasks

2. Cranial Nerves
   I- Olfactory
   II- Optic
   III- Oculomotor
   IV- Trochlear
   V- Trigeminal (Ophthalmic, Maxillary, Mandibular)
   VI- Abducens
   VII- Facial
   VIII- Acoustovestibular
   IX- Glossopharyngeal
   X- Vagus
   XI- Spinal Accessory
   XII- Hypoglossal

3. Motor
   Strength/Power
   Tone
   Deep Tendon Reflexes
   Fine Finger Movements

4. Cerebellar
   Finger to Nose
   Heel to Shin
   Balance “Righting Response”, “Checking” Reflex

5. Sensory
   Light Touch
   Pin Prick
   Vibration
   Proprioception
   Temperature
   Two-point discrimination
   Romberg

6. Gait
   Heel to Toe
   Balance/Antalgia
   Functional component
Neurological Exam

• Importance of the History
• Patient Centered
• Chief Complaint
• History of the Present Illness
• Psychosocial History
• Functional Goals
• Medications- current, and past (reason for discontinuation)
Neurological Exam (continued)

- Modalities Tried:
  1- Interventions
  2- Physical Therapy
  3- Exercise: how much, what type, how long
  4- Massage
  5- Yoga
  6- Acupuncture
  7- TENS unit, biofeedback, hypnosis
Mental Status

- **Attention**
  1- Able to answer questions
  2- Follow 3 step commands
  3- Spell “WORLD” forwards and backwards
  4- Repeat 7-digit number
  5- Frontal Lobe Tasks
  6- Name last 4 Presidents of the United States
  7- Counting back by 7, from 100... 93, 86, 79...
Mental Status (continued)

- Orientation (person, place, situation)
- Naming
- Language (receptive, expressive)
- Abstraction
- Reading
- Writing
Cranial Nerves

- I-Olfactory Nerve
- II- Optic
- III- Oculomotor
- IV- Trochlear
- V- Trigeminal (Opthalmic, Maxillary, Mandibular)
- VI- Abducens
- VII- Facial
Cranial Nerves (continued)

- VIII- Acoustovestibular
- IX- Glossopharyngeal
- X- Vagus
- XI- Spinal Accessory
- XII- Hypoglossal
Motor Exam

• Strength/Power
• Fine Finger Movements
• Deep Tendon Reflexes (reflex hammer)
• Tone/Spasticity

• Differences in motor examination with Upper and Lower Motor Neuron Diseases (examples)
Cerebellar Exam

- Finger to Nose
- Heel to Shin
- “Righting Response”
- Balance
- “Check” Response

- Diseases with Abnormal Cerebellar Exam findings (examples)
Sensory Exam

• Touch: Light Touch, Pin Prick
• Vibration Sense (Tuning Fork)
• Proprioception
• Temperature: Cold/Hot
• Romberg (dorsal columns---NOT cerebellar)
Gait Evaluation

- Heel to Toe
- Tandem Gait
- Antalgia
- Balance
- Functional
Functional Pain Scales

- Brief Pain Inventory (BPI)
- Pain Outcomes Profile
- Pain Tracker
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The mission of Project ECHO® (Extension for Community Healthcare Outcomes) has been to develop the capacity to safely and effectively treat chronic, common, and complex diseases in rural and underserved areas, and to monitor outcomes of this treatment.

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