

NURS 821 Neurological Disorders

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Lecture 11

Part 2 Disorders of the Central Nervous System: Migraine Headaches

Migraine Headaches



Headaches



- Not a disorder, but a symptom
- Etiology: Muscles and blood vessels along surface and base of brain sensitive to pain-contain delicate nerve fibers, nociceptors
- Nociceptors stimulated by stress, muscular tension, dilated blood vessels, and other triggers
- Bones and brain tissue-no pain receptors
- Research-Persons with chronic HA may have lower levels of endorphins; thermograms show strikingly different heat patterns

(NINDS, 2000)

Headache Danger Signs

- Sudden, severe HA
- Convulsions
- Confusion or loss of consciousness
- After head blow
- Associated w eye or ear pain
- Persistent pain in someone w/o hx
- Recurring HA in children
- Fever
- Interferes w ADLs



(NINDS, 2000)

Migraine Headaches

- Common, familial disorder
- Higher in Caucasians, lowest in Asians
- More common in females
- Begins in childhood, adolescence, or early adulthood; greater than 80% onset is before 30 years of age
- Characterized by periodic, commonly unilateral, often pulsatile headache
- Recurs with diminishing frequency during advancing years

Migraine

- Two closely related syndromes:
 - Migraine with aura (classic, or neurologic)
 - Migraine without aura (common)

*Terminology of International Headache society

Migraine

- Etiology of both forms unclear
- In migraine with aura, there is suspected decrease in cerebral circulation
- In various studies using PET, MRI, SPECT, and Doppler there is a decrease in blood flow starting in occipital cortex and spreading anteriorly
- A study of migraine without aura sufferers revealed a dilatation of the superior temporal artery.

Migraine

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|---------------------------------------|------------------------------|
| ■ Many triggers have been identified: | ■ PMS |
| ■ Bright lights | ■ Allergies |
| ■ Noise | ■ Odors |
| ■ Tension | ■ Sinus infections/headaches |
| ■ Alcohol | |
| ■ Tyramine in diet | |

Migraine With Aura

- Preceding day may experience:
 - Mood changes (energy surge, feeling of well being)
 - Hunger or anorexia
 - Drowsiness
 - Frequent yawning

Migraine With Aura

- Onset- soon after awakening, but may occur anytime
- Abrupt disturbance of vision:
 - Flashes of light
 - Enlarging blind spot with shimmering edge (scintillating scotoma)
 - Formation of zigzag lines (fortification spectra)
 - Blurred, cloudy vision

Migraine With Aura

- Less commonly seen:
 - Numbness and tingling of lips, face, and hand (one or both sides)
 - Slight confusion of thinking
 - Weakness of an arm or leg
 - Mild aphasia or dysarthria
 - Dizziness & uncertainty of gait
 - Drowsiness

Migraine With Aura

- Manifestations tend to occur in the same combination with each attack
- Last 1 – 15+ minutes
- Followed by the same pain scenario as migraine without aura

Migraine Without Aura

- Onset usually upon awakening or later in the day
- Frontotemporal, uni-or bilateral dull pain progressing to throbbing pain, worse behind one eye or ear
- Becomes a dull generalized ache

Migraine Without Aura

- Sensitive scalp
- Nausea/vomiting may occur
- Duration: 4-24 hours in most cases, sometimes longer
- Relieved by darkness and sleep
- Diagnosis: based on careful history taking and clinical manifestations
