Headaches in EMS; Not Yours, Your Patient's

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Headaches how common?

- You tell me!
- It is one of the most common complaints.
- About 80% of the population suffer…
- 60% may be classified as:
  - Tension
  - Migraine
  - Cluster

Tension Headache

- Most common.
- Some folks are very lucky…
- May last from thirty (30) minutes to a week.
- Longer than a week it would be considered a "chronic tension headache."

Tension Headache if...

At least two of the following are present:

- It is felt on both sides of the head (R & L).
- It is heavy or oppressive (tight band).
- Slight to moderate pain, ADL can be continued.
- It does not worsen during exercise or exertion.

Other findings

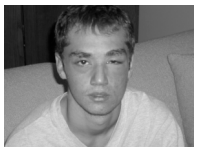
May be accompanied by nausea and vomiting.

There may be hypersensitivity to light or noise - but note: ONLY one of these, light or noise.

Causes

But also…

- Tiredness.
- Prolonged reading or intensively reading.
- Lifestyle.
- Posture.
- Work habits.

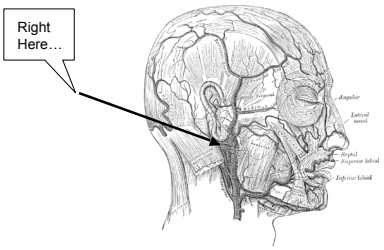


A & P causes

- Abnormal neuronal sensitivity and facilitation of pain transmission.
- Trigeminal nucleus caudalis acts as the major sensory relay center for pain signals of the head and upper neck.

What?

A & P



Chronic

Episodic – fewer than 15 days a month or 180 days per year.

Chronic – well, more often than the above episodic.

Treatment

- Remove / relieve the cause.
- Relaxation.
- Cold compress (ah yes…the instant ice pack).
- Tylenol, Advil, etc.
- Reassurance...
- Beyond EMS, Lifestyle changes…

Migraine Classification

Abdominal migraine
Basilar artery migraine
Carotidynia
Headache-free migraine
Ophthalmoplegic migraine
Status migraine

Migraine

One in eight adults.
Most common in ages 25 – 34.
Women 2x to 3x more often than men.

Frequency and Duration

Migraine "attack" on the average, once a month.

Usually last between 4 and 72 hours.

Aura - Approx. 20% of migraines have aura.

Aura in Migraine

Aura is usually considered a "warning."

Occurs 10 to 30 minutes prior to the migraine onset.

About 1 in 5 cases.

The may be a very frightening experience.

Lines or spots before the eyes.

Migraine Triggers

Bright or flashing lights.

Irregular sleeping or eating patterns.

Loud noises and strong smells.

Sudden weather or altitude changes.

Emotional factors, such as stress, fatigue or excitement.

Triggers

Women may find fluctuating hormone levels i.e.: ovulation, menstruation or birth control pills contributing factors.

Diet: red wine, cheese, chocolate, nuts, soy sauce, citrus fruit, alcohol, caffeine.

Some food additives: MSG, Na^+ Nitrates.

Symptoms*

Moderate to severe "throbbing" pain.

Location on one side of the head.

Pain is bad enough to prevent ADL.

Pain will increase with activity-going up/down stairs.

Nausea is common, vomiting too.

Sensitivity to light and sound.

*in general

Treatment - common

Lifestyle changes - prevention

Daily medications:

Midrin, Imetrex, Inderal, Depakote

PRN medications (rescue)

sumatriptan (Imigran), ergotamine, Zomig

Prehospital Care

Usual complete patient assessment

Offer a secure, quiet environment.

Low lights, ice pack.

IV rate related to assessment factors.

Medications for nausea -Reglan, Phenergan, Zofran.

O_2

Stroke scale with assessment and reassess.

Status Migraine

Migraine s/s are transient - fully reversible.

If s/s not reversible then it is NOT a migraine.

Has pain lasted more than 72 hours? Consideration for CT in destination facility.

This patient (status / complicated migraine) may require hospitalization.

Status Migraine

Pathogenesis is cerebral vasospasm; hypovolemia (protracted vomiting, diarrhea); platelet aggregation (increasing circulating catecholamines).

Bottom line…Status migraine may mimic a stroke, especially given the severity of the head pain, visual disturbances, ocular motor activity, and If the patient has NEVER experienced this before.

Cluster Headaches

A rare type of headache that is more common in men than women.

Pain is usually behind or around one eye.

Pain is very severe!

The eye and nose on one side of the face may become red, swollen, and runny.

Cluster Headaches

EMS Assessment tip…

Patient will NOT lie down, you will typically find this patient to be pacing,moving about seeking relief…

More often the "cluster period" will be in the AM and the H.A. will wake the patient.

Cluster Headache

Very frightening to sufferer and his/her family.

Headache may last a few minutes to several hours. Typically 30-45 minutes.

Typically occur same time each day for several weeks, "cluster period."

"Cluster period" may last 4 – 8 weeks.

Cluster Headache

There may be trigger zones on the face, i.e., nares or mouth.

Major neuralgias include the trigeminal nerve (tic douloureux) and glossopharyngeal neuralgia pain may develop 2nd to yawning, swallowing or eating.

Cluster Headache

Other treatments may include:
Ergotamine preparations – slow onset.
Dihydroergotamine injection.
NSAIDS.
Lidocaine nose gtts.

Surgical interventions if no medical response.

Other Headaches

Spontaneous Intracranial Hypotension

Headache may involve the "whole head," or be frontal or occipital.

Worsens when sitting/standing;

Improvement noted when lying down.

Worsens with jugular venous compression or a valsalva maneuver.

S.I.H. headache

- Other s/s: nausea/vomiting, neck stiffness, faintness, photophobia.
- Possible causes
  Tear in nerve root sleeve 2° to sneezing or straining.
  Post lumbar puncture.

Prehospital Management

- Oxygen.
- Safe, comfortable, low light ride, w/stretcher flat.
- IV – normal saline.
- Antiemetics.

Subarachnoid

Small percentage are not aneurysm related.

They occur spontaneously and are generally localized to one specific area of the brain. These are know as perimesencephalic clusters.

Prognosis with this type of hemorrhage is excellent - venous or capillary rupture.

Subarachnoid (thunder clap) S/S

- Sudden onset
- Worst ever headache - *hallmark*
- Proceeded by popping or snapping
- New type of pain
- Generalized, worse near back of head
- Nausea & vomiting
- ↓ LOC

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Patient Assessment

- ABC's – headache may also indicate some other serious significant illness or injury.
- Observe for obvious s/s trauma to the head.
- Is there any abnormal posturing?
- Has the patient vomited?
- Mental status changes, slurred speech or neuro deficit?
- Fever?

The above associated with a headache IS a significant Finding that usually indicate some intracranial pathology!

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Kids n' Headaches

When to worry… and...

Common causes (when NOT to worry)

- Staying up too late, playing in the sun too long or a "simple bump on the head"
- Stress - up coming test, fight with friends/family
- But what if...

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- Nausea/vomiting
- Visual changes
- Weakness
- Tingling sensations
- Decreased level of consciousness
- There is fever present or other s/s of infection
- Ear pain

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Other "Flags" with Kids

- Unexplained.
- Recurrent over "short" period period of time - how short is short is a short period of time?
- Understand the child's baseline - talk with care providers.
- Taking medications - frequent side effect of medications IS a headache.

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History taking is Key

- Describe the pain - remember children may have the same headaches that adult have.
- For how long?
- What was the child doing prior to the start of the headache?
- Treatment prior to your arrival?
- Does anything seem to make it better? Worse?
- Recent dietary changes?

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Prehospital Care

- Assure ABC's
- O_2 prn - if in doubt give the oxygen
- Assure hydration, po if not contraindicated
- Cool pack
- Dim the lights
- Safe ride
- If critical i.e. seizure, coma - usual treatment

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Okay…

Let's have some fun!

Just one more

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EMS Headache

- Alcohol - "it is wise to remember…never mix the grain and the grape"
- Causes - altering fluid balance, decreasing blood sugar level, and irritating the stomach
- Also "mixers" may cause their own set of irritants
- Before you start it IS wise to eat FIRST (consider a glass of milk with food)
- Cure - OTC pain med, increase hydration, bland carbohydrates, and consider an antacid.

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Special Questions – chronic HA

How long have you had HA?
How have they changed?
How often do the HA occur?
How long does each HA typically last?
Does it hurt in one area?
What does it feel like?
How soon does it reach its maximum intensity?
Do you suffer any other c/o during the HA?

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