DISCLOSURES:

• Grants/Research Support (no personal compensation)
  • Amgen
  • ATI
  • Teva
• Advisory Board
  • Pernix – March 2017
OBJECTIVES:

• Evaluation of the non-migraine patient
• Using the International Classification of Headache Disorders – 3 Beta (ICHD-3 Beta) to classify headache disorders, including medication overuse headache (MOH), new daily persistent headache, paroxysmal hemicranias, hemicranias continua, tension type headache, idiopathic intracranial hypertension, hemicranias continua, cluster headache.
• Identification of red flag symptoms
• Identify when it is appropriate to image the patient
• Identify appropriate labs to be ordered and medication management of described headaches disorders
• Go over a brief overview of management of the above headache disorders
NON-MIGRAINE HEADACHE DISORDERS

- Medication Overuse Headache
- Idiopathic Intracranial Hypertension
- Indomethacin Responsive Headaches
  - Hemicrania continua
  - Paroxysmal hemicrania
  - Chronic paroxysmal hemicrania
- Cluster Headache
- Tension type headache
- New Daily Persistent headache
HEADACHE EVALUATIONS

• Headache is a symptom, not a diagnosis!
• History, History, History
• Rule out secondary causes of headache
• Aggressive management
  • Picking the right medication/management for the right headache disorder
DIAGNOSIS

History and Physical Examination

RED FLAG SX

Secondary Headache

Diagnosis/Testing

Primary Headache Dx ??

NO

YES
**RED FLAGS: SNOOPS**

- **Systemic symptoms** (fever, weight loss)
- **Neurologic symptoms** or abnormal signs
- **Onset**: sudden
- **Older**: new onset and/or progressive headache
- **Previous** headache history (if HA is first, different, or changing)
- **Secondary risk factors** (cancer, HIV)
GREEN FLAG SIGNS

• Stable pattern >6 months
• Long-standing history
• Family history of similar headache
• Normal physical exam
• Consistently triggered by
  • Hormonal cycle
  • Specific foods
  • Specific sensory input
  • Weather changes
TE 35 Y.O. RIGHT HANDED FEMALE

- PMH headache, PNES and Asthma
- Patient started having headaches in middle school once a week lasting several hours. They got better during her two pregnancies in 2008-9 and 2012-13. She currently has a daily headaches. She has mild headaches that are dull with a throbbing quality in the b/l frontal region, Vertex or b/l occipital region.
- She is having headache exacerbations 2-3x per week the headache becomes holocephalic. She has associated nausea, no vomiting, photophobia, phonophobia and osmophobia. She has no autonomic sx; lacrimation, rhinorrhea or ptosis. There is not positional component.
- She is alternating ibuprofen and Tylenol for the management of her headaches and some joint pain.
TE 35 Y.O. RIGHT HANDED FEMALE

- **PMH headache, PNES and Asthma**

- Patient started having headaches in middle school once a week lasting several hours. They got better during her two pregnancies in 2008-9 and 2012-13. She currently has a daily headaches. She has mild headaches that are dull with a throbbing quality in the b/l frontal region, Vertex or b/l occipital region.

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- She is alternating ibuprofen and Tylenol for the management of her headaches and some joint pain.
MEDICATION OVERUSE HEADACHE (ICHD3 BETA 8.2)

A. Headache occurring on ≥15 d/mo in a patient with a pre-existing headache disorder

B. Regular overuse for >3 mo of one or more drugs that can be taken for acute and/or symptomatic treatment of headache

C. Not better accounted for by another ICHD-3 diagnosis

ICHD-3 beta. Cephalgia 2013; 33: 629-808
ELIMINATE MEDICATIONS CAUSING MEDICATION OVERUSE HEADACHE

- Opiates
- Narcotic medication
- Short acting over the counter medications (>3 days per week)
  - Acetaminophen (Tylenol)
  - Ibuprofen
  - Acetaminophen/Aspirin/Caffeine (Excedrin)
- Acetaminophen / Butalbital / Caffeine [Fioricet] and Aspirin / Butalbital / Caffeine [Fiorinal] (>1 days per week)
- Tramadol (Ultram) (>50 mg daily, metabolite causes headache)
- Benzodiazepines
MOH CONCEPTS

• The conventional wisdom is always to wean
• Based on two concepts:
  1. Overuse may interfere with preventive medications
  2. Overuse can cause collateral damage
     • Gastroenteropathy and analgesic nephropathy
     • Dependence
     • Exacerbations of depression
     • Opioid induced hyperalgesia
     • Addiction, multi-sourcing, interfering with therapeutic alliance
IN MEDICATION-OVERUSE HEADACHE, FMRI SHOWS LONG-LASTING DYSFUNCTION IN MIDBRAIN AREAS
TAKE AWAY POINTS

• Wean patients off offending medications
• It may take up to 6 months to see the full impact of a medications withdrawal
• Prophylactic medications will work better in the absence of medication overuse headache
CC IS A 36 Y/O RH FEMALE

• Presenting for evaluation of increased headache frequency. She is having daily headache 4-5/10 in intensity with very prominent nausea and vomiting. She is hearing a swooshing sound in her ears. She has diplopia with lateral gaze bilaterally and occasional blurring of vision, at times feeling like she is in a tunnel. When asked about her weight she admits that she has gained 80lbs over her clinical course.

• She has a previous history if migraine without aura that was well controlled with the use of PRN triptan and naproxen sodium.
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• She has a previous history if migraine without aura that was well controlled with the use of PRN triptan and naproxen sodium.
IDIOPATHIC INTRACRANIAL HYPERTENSION
7.1.1 Headache attributed to idiopathic intracranial hypertension (IIH)

*Previously used terms:*

Headache attributed to benign intracranial hypertension (BIH); pseudotumor cerebri; meningeal hydrops; serous meningitis.

*Description:*

Headache caused by Idiopathic intracranial hypertension (IIH), usually accompanied by other symptoms and/or clinical signs of IIH. It remits after normalization of cerebrospinal fluid pressure.
DIAGNOSTIC CRITERIA:

A. Any headache fulfilling criterion C

B. Idiopathic intracranial hypertension (IIH) has been diagnosed, with CSF pressure >250mm CSF (measured by lumbar puncture performed in the lateral decubitus position, without sedative medications or by epidural or intraventricular monitoring)

C. Evidence of causation demonstrated by at least two of the following:
   1. Headache has developed in temporal relation to IIH or lead to its discovery
   2. Headache is relieved by reducing intracranial hypertension
   3. Headache is aggravated in temporal relation to increased intracranial pressure

D. Not better accounted for by another ICHD-3 diagnosis

EPIDEMIOLOGY

- Incidence
  - 1.6/100,000 over all
  - 11.9/100,000 obese women
  - 3:1 to 10:1 Female to Male ratio
- Canadian Pediatric evaluation demonstrated a rising incidence of obesity and a drop in the incidence of IIH (Lulu)
Increasing obesity in America

CDC

1995

2010

No Data <10% 10% - 14% 15% - 19% 20% - 24% 25% - 29% >30%
DX CRITERIA

A. Any headache fulfilling criterion C
B. Idiopathic intracranial hypertension (IIH) has been diagnosed, with CSF pressure ≥250mm CSF (measured by lumbar puncture performed in the lateral decubitus position, without sedative medications, or by epidural or intraventricular monitoring)
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   1. headache has developed in temporal relation to IIH, or led to its discovery
   2. headache is relieved by reducing intracranial hypertension
   3. headache is aggravated in temporal relation to increase in intracranial pressure
D. Not better accounted for by another ICHD-3 diagnosis.

Revised criteria:

A. Papilledema
B. Normal Neurological examination except for cranial nerve abnormalities
C. Neuroimaging: normal brain parenchyma without evidence of hydrocephalus, mass or structural lesion and no abnormal meningeal enhancement on MRI, with and without gadolinium, for typical patient’s (female and obese) common and MRI, with and without gadolinium and MRV for others: If MRI is unavailable or contraindicated contrast-enhanced CT may be used
D. Normal CSF composition
E. Elevated lumbar puncture opening pressure (greater equal to ≥250 mm CSF in adults and greater than or equal to ≥280 mm of CSF and children [215 mm CSF child is not sedated and not obese]) in a properly performed lumbar puncture
REVISED CRITERIA:

Required for diagnosis of pseudotumor cerebri

A. Papilledema
B. Normal Neurological examination except for cranial nerve abnormalities
C. Neuroimaging: normal brain parenchyma without evidence of hydrocephalus, mass or structural lesion and no abnormal meningeal enhancement on MRI, with and without gadolinium, for typical patient’s (female and obese) common and MRI, with and without gadolinium and MRV for others: If MRI is unavailable or contraindicated contrast-enhanced CT may be used
D. Normal CSF composition
E. Elevated lumbar puncture opening pressure (greater equal to ≥250 mm CSF in adults and greater than or equal to ≥280 mm of CSF and children [215 mm CSF child is not sedated and not obese]) in a properly performed lumbar puncture

In the absence of papilledema, diagnosis of pseudotumor cerebri can be made if the–knee from above are satisfied and in addition the patient has a unilateral or bilateral abducens nerve palsy

In the absence of papilledema or sixth nerve palsy, diagnosis of pseudotumor cerebri can be suggested but not made if the bruin from above her satisfied, and in addition at least 3 of the following neuro imaging criteria are satisfied:

i. Empty sella
ii. Flattening of the posterior aspect of the globe
iii. Distention of the periodic subarachnoid space with or without a tortuous optic nerve
iv. Transient venous sinus stenosis

LUMBAR PUNCTURE EVALUATION

• Supine vs Prone
  • Diagnostic criteria requires lateral decubitus position
  • Latest research from Mayo:
    • Measuring OP with the patient in the prone position may result in overestimation of CSF pressure by about 2cm H2O
    • No correlation between BMI and opening pressure measurements

WORK-UP

- History
- Fundoscopic examination
- Ophthalmology evaluation
- MRI brain, MRV
- Lumbar puncture
  - Elevated pressure >25 cm H2O
  - Normal CSF composition
RED FLAGS

- Atypical demographic profile
- CN palsies other than the CNVI
- Alterations in LOC
- Focal Neurological sx (other than CNVI)
- Explosive onset of sx
- Rapid development of vision loss and progression of sx
- Global ophthalmoplegia
- Internuclear ophthalmoplegia
- Vertical gaze d/o

Kornorsky. Idiopathic Intracranial Hypertension: Pseudotumor cerebri. Headache currents; Feb 2013: 389-393
PATHOPHYSIOLOGY

- Increased CSF production
- Decreased CSF absorption
  - Low CSF conduction through ventricular system
  - Increased intraventricular CSF volume
  - Venous sinus stenosis
- Genetic predisposition
- Aldosterone
TREATMENT

• Medical Management
  • Weight loss
  • Medications
    • Acetazolamide
    • Topiramate (Topamax)
    • Furosemide
    • Steroid Taper

• Surgical Management
  • Optic Nerve sheath Fenestration
  • Ventriculoperitoneal Shunt vs Lumboperitoneal Shunt
  • Bariatric surgery

• Interventional Radiology
  • Venous sinus stenting
Fig. 1  Management strategy for idiopathic intracranial hypertension (IIH)
TAKE AWAY POINTS

• Start with medical management if the patient symptoms are not progressing rapidly
• Weight management is definitive management for this disorder
• Optic nerve sheath fenestration if changes in vision are the most prominent features
• Neurosurgery evaluation for shunt placement – helps with papilledema but has less prominent effect on headache symptoms
  • High revision rates
• If patient has Venous sinus stenosis – stenting can be considered
JB 24 Y.O. RIGHT HANDED MALE

- PMH: back pain secondary to Scheuermann's Kyphosis and new onset headaches
- Patient started having headaches in Jan 2015 – now with 9 months of headache sx.
- The headache is side locked on the left. It starts in the left eye then radiates to the back of the neck. The pain can be an annoyance and then the throbbing in quality. There is a stabbing quality to the pain in the crown only. He reports associated left eye erythema and injection, swelling of the left eye to the point that it is closes, lacrimation in the left eye and b/l rhinorrhea. He feels like the eye is going to “pop out” - there is no sharp or stabbing quality to this pain. There is a sensation of ear fullness on the left during the headache exacerbations. He gets irritable with a headache but will go lie down and sleep if he can. Sleep seems to relieve headache. He can be headache free after taking medications all of these medications - Ibuprofen, Aleve or Excedrin migraine. If untreated the headache will last > 12 hours at a time. He has associate nausea, no vomiting, photophobia and phonophobia with no osmophobia. He denies sx of aura.
- He has h/o “ sinus HA” that he used to get 2x per year – and would resolves with 3 days of Claritin scheduled.
CASE 1: JB 24 Y.O. RIGHT HANDED MALE

- PMH: back pain secondary to Scheuermann's Kyphosis and new onset headaches
- Patient started having headaches in Jan 2015 – now with 9 months of headache sx.

- The headache is **side locked on the left**. It starts in the left eye then radiates to the back of the neck. The pain can be an annoyance and then the throbbing in quality. There is a stabbing quality to the pain in the crown only. He reports **associated left eye erythema and injection, swelling of the left eye** to the point that it is closes, lacrimation in the left eye and b/l rhinorrhea. He feels like the eye is going to “pop out” - there is no sharp or stabbing quality to this pain. There is a **sensation of ear fullness** on the left during the headache exacerbations. He gets irritable with a headache but will go lie down and sleep if he can. Sleep seems to relieve headache. He can be headache free after taking medications all of these medications - **Ibuprofen, Aleve or Excedrin migraine**. If untreated the headache will last > 12 hours at a time. He has associate nausea, no vomiting, photophobia and phonophobia with no osmophobia. He denies sx of aura.
- He has h/o **“sinus HA”** that he used to get 2x per year – and would resolves with 3 days of **Claritin** scheduled.
INDOMETHACIN RESPONSIVE HEADACHES

HEMICRANIA CONTINUA
PAROXYSMAL HEMICRANIA
CHRONIC PAROXYSMAL HEMICRANIA
INDOMETHACIN RESPONSIVE TRIGEMINAL AUTONOMIC CEPHALGIAS (TAC)

• 1. at least one of the following symptoms or signs, ipsilateral to the headache:
  • a) conjunctival injection and/or lacrimation
  • b) nasal congestion and/or rhinorrhea
  • c) eyelid oedema
  • d) forehead and facial sweating
  • e) forehead and facial flushing
  • f) sensation of fullness in the ear
  • g) miosis and/or ptosis

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INDOMETHACIN RESPONSIVE
TRIGEMINAL AUTONOMIC CEPHALGIAS (TAC)

Paroxysmal Hemicrania

Hemicrania Continua
OTHER INDOMETHACIN RESPONSIVE HEADACHES

• Primary cough headache
  • Brought on with coughing or Valsalva
  • Sudden onset
  • Duration: 1s – 2h

• Primary exercise headache
  • Brought on by and occurring during or after strenuous physical exercise
  • Lasting <48h

• Primary headache associated with sexual activity
  • Brought on by and occurring exclusively during sexual activity
    • Increasing intensity with increasing sexual excitement
    • Abrupt explosive intensity just before or with orgasm
    • Duration: 1m – 24h severe, up to 72h mild
SECONDARY CAUSES

- CVD
- Frontal lobe tumor
- Cavernous sinus lesions
- Increased ICP
- Pancoast tumor
- Thrombocytemia
- AVM
- Parotid epidermoid
WORK-UP

- MRI brain
- Labs: CBC, ESR,
- CXR
- LP - especially if it becomes bilateral
MANAGEMENT

• Indomethacin challenge
  • Initially 25mg three times a day and up to 225mg daily
  • Response frequently within 1-3 days

• Taper/titration
  • Decrease by 25mg q3 days until headache recurs

• Ongoing treatment
  • Median dose HC 75-176mg/day (25-500mg/day)
  • Median dose PH 149mg/day (50-225mg/day)

CHALLENGES

• Unable to tolerate medication
  • Common treatment-limiting side effects
    • Abdominal pain
    • Gastric ulcer/bleeding
    • Diarrhea
  • Less common/other treatment-limiting side effects
    • Headache
    • RCVS\(^1\)
    • Renal injury
    • Relative risk for CV events 1.30 (95% CI, 1.19-1.41)\(^2\)

ALTERNATIVES

• Indomethacin suppositories\textsuperscript{1}
  • Bioavailability 80-90%
  • Slower rate of absorption
• Melatonin (3-30mg/day)\textsuperscript{2,3,4,5}
• Gabapentin (600-3600mg/day)\textsuperscript{6,7,8}
• Verapamil (120-480mg/day)\textsuperscript{9,10,11}
• COX-2 inhibitors (celecoxib, rofecoxib)\textsuperscript{12,13,14}
• Topiramate (100-200mg/day)
• Botulinum toxin (100-150 Units)\textsuperscript{15,16}
• Boswellia serrata \textsuperscript{17, 18, 19, 20, 21,22}

1. Lucas S. Headache Curr 2016;56:436
5. Spears R. Headache 2006;46:524-527
TAKE AWAY POINTS:

• Screen patients for unilateral headache pain and autonomic features
• This can occur with other headache disorders
• Do an adequate indomethacin trial with GI protection
• Screen patients at every increase in dose to make sure they are not having side effects
• Patient reports having headaches for many years, but always thought they were related to his EtOH use. After being sober for 5 years he has found to have increased HA frequency and severity. He is having every headache every 2-3 months.

• He initially gets a prodrome over the left eyebrow which progresses to a sharp stabbing pain behind the left eye. He has had an episode where the pain radiated down into the teeth. He can get some relief with pressure on the occipital nerve. Headache will typically last about 20 minutes, but can last up to 2 hours.

• When he has the attacks he feels restless. He has a hard time finding a good position but eventually will fall asleep and then does not wake up with a HA.

• With the headache he reports injection in the left eye and left sided lacrimation. He denies and feeling of ear fullness. He does not know if he has any ptosis or myosis during these episodes. He has some mild nausea and no vomiting and may be mild photophobia.

• He has been given many pain medications that just take the edge off the pain, but do not resolve the headache.
35 Y/O RIGHT HANDED MALE

- Patient reports having headaches for many years, but always thought they were related to his EtOH use. After being sober for 5 years he has found to have increased HA frequency and severity. He is having every headache every 2-3 months.

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- He has been given many pain medications that just take the edge off the pain, but do not resolve the headache.
CLUSTER HEADACHE
CLUSTER HEADACHE (ICHD3 BETA 3.1)

A. At least 5 attacks fulfilling criteria B-D

B. Severe or very severe unilateral orbital, supraorbital and/or temporal pain lasting 15-180 min (when untreated)

C. Either or both of the following:
   1. ≥1 of the following ipsilateral symptoms or signs:
      a) conjunctival injection and/or lacrimation
      b) nasal congestion and/or rhinorrhea
      c) eyelid edema
      d) fore-head and facial sweating
      e) forehead and facial flushing
      f) sensation of fullness in the ear
      g) miosis and/or ptosis
   2. a sense of restlessness or agitation

D. Attacks have a frequency between one every other day and eight per day for more than half of the time when the disorder is active

E. Not better accounted for by another ICHD-3 diagnosis.

ICHD-3 beta. Cephalgia 2013; 33: 629-808
CLUSTER HEADACHE (ICHD3 BETA 3.1)

Episodic
• At least two cluster periods lasting from 7 days to 1 year (when untreated) and separated by pain-free remission periods of 1 month

Chronic
• Occurring without a remission period, or with remissions lasting <1 month, for at least 1 year.

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<tr>
<td>------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>M &gt; F</td>
</tr>
<tr>
<td><strong>Pain</strong></td>
<td></td>
</tr>
<tr>
<td>Attack Frequency (/day)</td>
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<tr>
<td>Duration (min)</td>
<td>15-180</td>
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<tr>
<td><strong>Cranial autonomic features</strong></td>
<td>yes</td>
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<tr>
<td><strong>Migrainous features</strong></td>
<td>50%</td>
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<tr>
<td>Nausea/photophobia/phonophobia</td>
<td></td>
</tr>
<tr>
<td><strong>Alcoholic trigger</strong></td>
<td>90%</td>
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<tr>
<td><strong>Cutaneous triggers</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Prescriptions</strong></td>
<td></td>
</tr>
<tr>
<td>Sumatriptan SQ</td>
<td>90%</td>
</tr>
<tr>
<td>Indomethacin</td>
<td>No effect</td>
</tr>
<tr>
<td>Oxygen</td>
<td>75%</td>
</tr>
</tbody>
</table>

(After Cohen et al., Brain 2006;129:2746 and Cittadini et al., Brain 2008;131:1142)
ACUTE TREATMENT OF CLUSTER

• Sumatriptan 4mg sc tid prn (FDA indication)
• Oxygen 100% F IO2 by mask 7-10 l/min, 10-12 l/min, or rarely higher flow rates (require special valve)
• Rarely transnasal butorphanol (high addiction potential)
• Less effective:
  • Sumatriptan NS
  • Zolmitriptan NS
  • Intranasal, IV, IM dihydroergotamine
  • Ergotamine tartrate 1-2 mg PO/PR
  • Lidocaine nasal drops
  • Zolmitriptan PO
CLUSTER SHORT- AND LONG-TERM PROPHYLAXIS

- Short: Course of steroids (oral or iv)
  - Daily ergotamine 1-2mg
  - Occipital nerve anesthetic blockade (? with steroid)
- Long-term:
  - verapamil 240-480mg /day or more
  - lithium 600-900mg /day (or more)
  - methylergonovine 0.4-1.2 mg /day
  - Indomethacin
  - lamotrigine 100-300mg /day
  - topiramate 100-200 mg /day
  - melatonin 10mg hs.
  - Possibly valproate 1000mg /day.

Afridi et al., Pain 2006;122:126
Shields et al., Neurology 2004;63:2193
Cohen et al., Neurology 2007;69:668
OTHER POTENTIAL MANAGEMENT

• Hormones
  • testosterone replacement for low/borderline low levels
  • clomiphene (one case cluster, one case SUNCT)

• Procedures:
  • Supra-, infra-orbital nerve blocks, neurectomy
  • Nervus intermedius section/ microvascular decompression
  • Greater superficial petrosal nerve section
  • RF lesioning of the Gasserian ganglion (or injecting glycerol), balloon compression
  • CN V rhizotomy (can also be done with gamma knife)
  • CN V microvascular decompression (high recurrence)
    • Risks: corneal anesthesia/abrasions, anesthesia dolorosa, CSF leak, masseter weakness, hearing loss, facial weakness, vertigo

Nesbitt et al., Neurology 2015;84:1-5
TAKE AWAY POINTS

• Ask about autonomic sx with the headache
• Duration of the headache is one of the defining characteristics
• Prevention of the headaches is important
• Don’t forget to assess emotional status and support
  • Used to be called the Suicide headache
55 Y/O MALE

- PMH CAD, HTN, DM presenting for evaluation and management of his headaches.
- Patient reports that he never misses any time at work due to his headache, however it is always there. Usually 2/10 HA intensity in a bad around his head with a pressure quality to the pain without any complaints of nausea, vomiting, photophobia, phonophobia or autonomic accompaniments. Occasionally in the evening the headache will increase to 5/10 in intensity without any associated sx.
- He is taking over the counter ibuprofen, twice a day to help with the headache, but he is not sure if it is helping. He has been having new GI upset and therefore is seeking attention for the headache as he can not continue to take daily ibuprofen.
55 Y/O MALE

- PMH CAD, HTN, DM presenting for evaluation and management of his headaches.

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CHRONIC TENSION TYPE HEADACHE (ICHD3 BETA 2.3.2)

C. ≥2 of the following 4 characteristics:
   1. bilateral location
   2. pressing or tightening (non-pulsating) quality
   3. mild or moderate intensity
   4. not aggravated by routine physical activity

D. Both of the following:
   1. no nausea or vomiting
   2. no more than one of photophobia or phonophobia

E. Not better accounted for by another ICHD-3 diagnosis

ICHD-3 beta. Cephalgia 2013; 33: 629-808
TENSION TYPE HEADACHE

• Defined as what migraine is not:
  • Lasts 30 minutes-7 days
  • Often bilateral, non-pulsating, mild or moderate, not worse with activity
  • No nausea/vomiting
  • Either or neither photo/phonophobia
MIGRAINE IS FREQUENTLY MISTAKEN FOR TENSION-TYPE HEADACHE- WHY?

- Migraine is a referred pain (V1 / C2-3)
- Neck pain 75% patients
- Psychological tension/ stress is frequent trigger
- Migraine headache is frequently bilateral (> 40%)

MANAGEMENT

• TCA
  • Amitriptyline
  • Nortriptyline
  • Protriptyline
• Other antidepressants
  • Mirtazapine
  • Venlafaxine
• AED
  • Topiramate (open label study)
  • Gabapentin (1 RCT)

2. AU. BMJ. 2010;341:c5222.
TAKE AWAY POINTS

• This headache is best defined as “what migraine is not”
• Most patients do not come to clinical attention due to their continued ability to function
• Gold standard of treatment is Amitriptyline
LR IS A 36 Y/O F

• Previously healthy female who reports that on Jan 20th 2016 she started having a headache and it has never gone away.

• The headache is holocephalic 3/10 intensity at baseline and has exacerbations of pain 3-4 times per week, with associated photophobia, no photophobia, nausea or vomiting. She started out taking over the counter medications, but has since discontinued their use as nothing has helped.

• There is a positive family Hx of migraine but she has never gotten headaches. There was no head injury prior to the onset of her headache.
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NEW DAILY PERSISTENT HEADACHE
4.10 NEW DAILY PERSISTENT HEADACHE

• Description:
  Persistent headache, daily from its onset, which is clearly remembered. The pain lacks characteristic features, and may be migraine-like or tension-type-like, or have elements of both.

• Diagnostic criteria:
  A. Persistent headache fulfilling criteria B and C
  B. Distinct and clearly remembered onset, with pain becoming continuous and unremitting within 24 hours
  C. Present for >3 months
  D. Not better accounted for by another ICHD-3 diagnosis.
NEW DAILY PERSISTENT HEADACHE

- Remembered day of onset
- Has two subforms:
  - self-limiting subform that typically resolves within several months without therapy
  - refractory form that is resistant to aggressive treatment regimens.
- Diagnosis of exclusion
- Prevalence estimated to be 0.1%
- The age of onset ranges from 12 to 79 years
WORK-UP

- MRI brain with and without contrast
- Thyroid function studies
- Lumbar puncture
  - Close opening pressure
  - Normal CSF composition
  - Elevated TNF alpha levels

TREATMENT

• Treat the phenotype
• Consider the use of Botox injection
• Early admission for modified Raskin Protocol maybe helpful
TAKE AWAY POINTS

• This is a diagnosis of exclusion
• Patient must have a comprehensive evaluation with
  • MRI brain, maybe vessel imaging
  • LP to rule out a pressure headache
• Very difficult to treat
THANK YOU

QUESTIONS??