CHRONIC HEADACHES

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Summary

- **RED FLAGS**
- How to approach a person with a headache
  - History, history, history
- Case study

Headaches

- International Headache Society Classification
- Website: https://www.ichd-3.org/
- **Headache is not a diagnosis, it is a symptom of an underlying condition that needs to be diagnosed**

History

- Onset
- Location
- Duration
- Headache-free periods
- Character of the pain
- Associated features
- Triggers, aggravating and relieving factors
- How many different types of headaches

RED FLAGS

1. Headache maximum at onset (thunderclap headaches)

2. New onset headache in people over 50

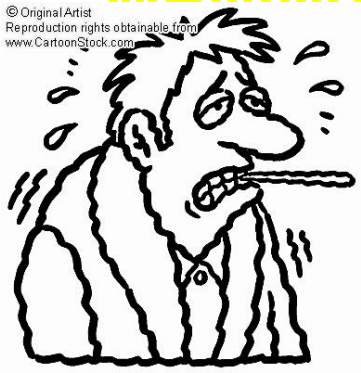
3. Features of raised ICP (early morning headaches, with stooping, bending, coughing)

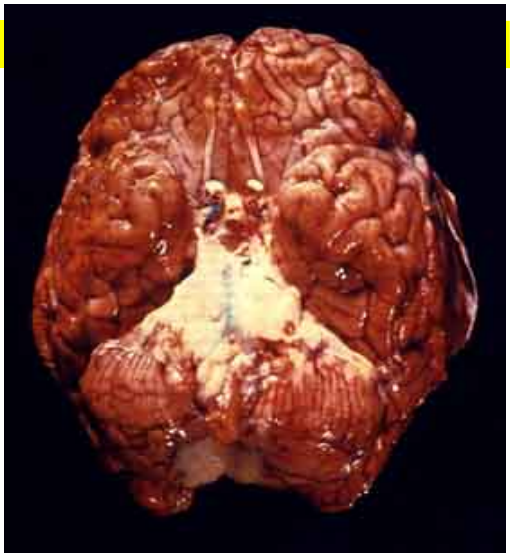
4. Postural headaches (low pressure)

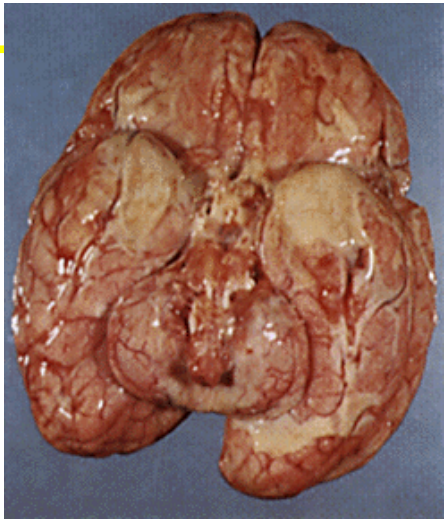
5. The company it keeps….

RED FLAG DIAGNOSES

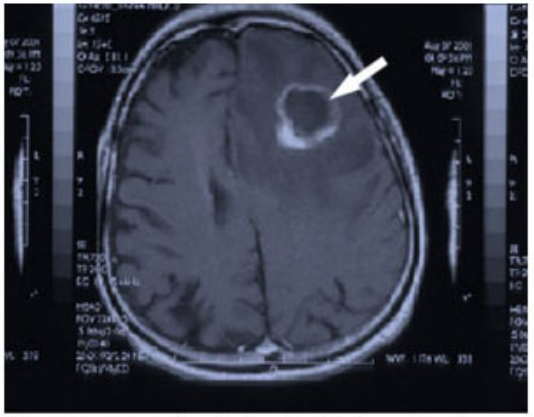
MENINGI[illegible]L







Fever
Seizures
Focal neurological signs
Visual changes



Magnetic resonance imaging showing brain tumor (arrow)

Neurology referral exclusion criteria (incomplete list):

- Bell's palsy – routine follow-up
- Botulinum therapy for migraines
- Certification of a patient's ability to drive, for private standards, in the presence of a neurological condition unless specified as a requirement by the Department of Transport (see Austroads Guidelines (external site) for assessing the fitness to drive)

- ***Chronic headache where standard treatment has not been tried.***

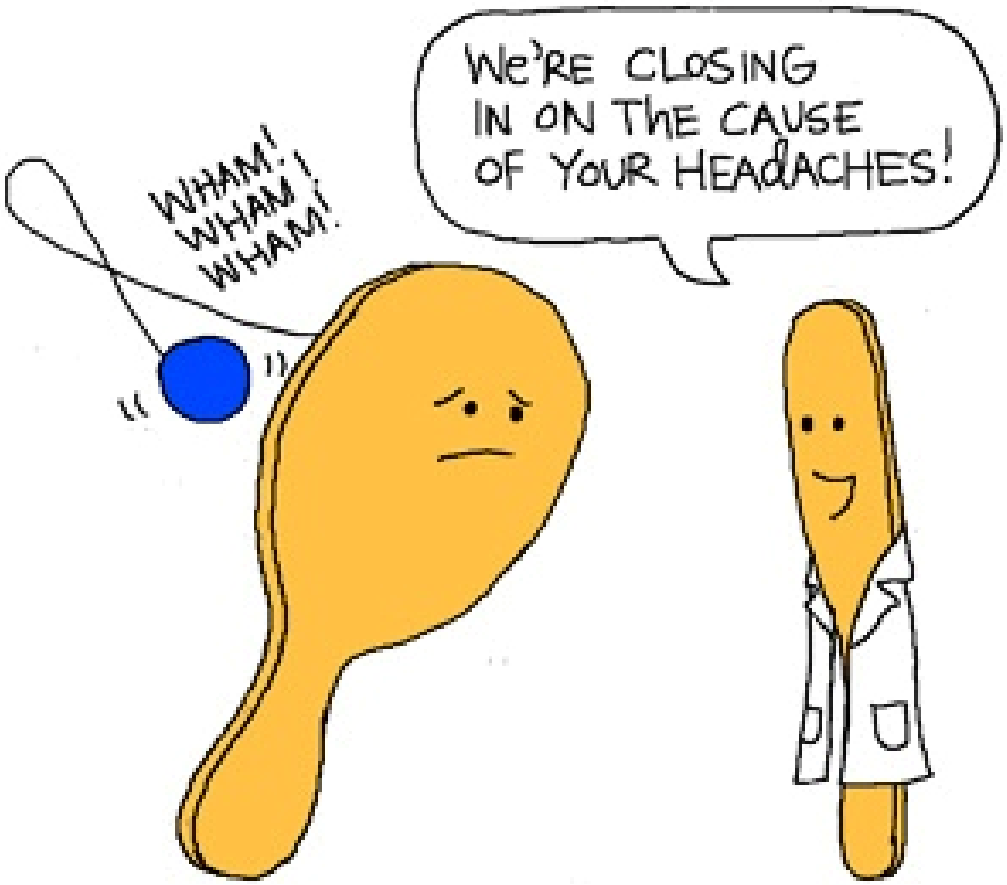
- Chronic low back pain, neck pain or radicular pain; chronic pain or non-specific pain syndromes (consider referral to pain services as appropriate).
- Chronic neurological conditions that are well controlled and do not require additional intervention e.g. chronic epileptic patient on stable drug therapy and no seizures for 10 years, do not need to be referred for 'routine' review.
- Lyme disease or Lyme-like illness.
- Fibromyalgia/Chronic Fatigue Syndrome (consider referral to rheumatology/pain services as appropriate).
- Neurological symptoms due to treatment non-adherence, e.g. seizures

CASE: MG

- 40 yo woman presents with 20 year history headaches, seen 2 other neurologists previously
  - Past Medical History - Asthma
  - Social History - Single mother of 2 children (5 and 7), works part-time as disability support worker
    - VRO against ex husband

- Currently the headaches are diffuse over cranium, continuous in nature. No photophobia, phonophobia or nausea. No features of raised ICP.
- Significant sleep disturbance for many years.
- Medications: Tramadol 100mg tds, occasional Panadeine forte and Naprosyn
  - *"NOTHING HELPS ANY MORE".*
- Recalled that her headaches began with infrequent attacks about once a month.
  - Lasted a day, fairly severe, unilateral throbbing in nature, some vomiting and photophobia and had to lie down and medicate with analgesia.
  - Then started having some neck ache/ stiffness, tightness and pressure around frontotemporal region occasionally for a couple of days in between these attacks
  - Frequency of both headaches gradually increased, then some low grade diffuse headaches between attacks starting about 5 years after initial syndrome began
  - Now headaches everyday, continuous all over head.

DIAGNOSIS AND MANAGEMENT


WHAM!
WHAM!
WHAM!
WE'RE CLOSING IN ON THE CAUSE OF YOUR HEADACHES!

Medication overuse headache

- Common type of headache which is under-diagnosed
- Can be caused by all analgesics – codeine and triptans are major culprits
- Consider as a cause in all patients with chronic headaches, especially migraine and tension-type.
- Develops in patients with a pre-existing primary headache disorder, usually migraine or tension-type headache.

Medication overuse headache

Symptoms include either worsening of headache associated with frequent medication use, or worsening of headache with medication reduction.

- Headache present ≥ 15 days per month.
- Regular headache medication use for ≥ 3 months, at least 10 to 15 days per month (eg 3-4x/ week for ≥ 3 months)
- Other features may include:
  - worse on waking.
  - aggravated by physical exercise.
  - nausea and other gastrointestinal symptoms.
  - restlessness, anxiety, irritability and poor concentration.

Tension type headaches

- Is the most common chronic recurring headaches
- episodic – occurs < 15 days per month, or
- chronic – occurs ≥ 15 days per month.
- Typically bilateral temporal, frontal or frontal-occipital
- Sensation of pressure inside the head, or of a band around the head.
- Usually lasts 30 minutes to 7 days
- Patient remains active and able to continue daily activities.

Tension type headaches

- May radiate to the neck, with subjective neck stiffness.
- May have associated tenderness and trigger points.
- May worsen as the day goes on.
- May be exacerbated by stress or busyness (often denied)
- Episodic pattern may progress to all day, every day pattern.
- Potential to progress to medication overuse headache.
- Neurological examination is normal.

Migraines

- Onset is commonly in the teens, but can be at any age.

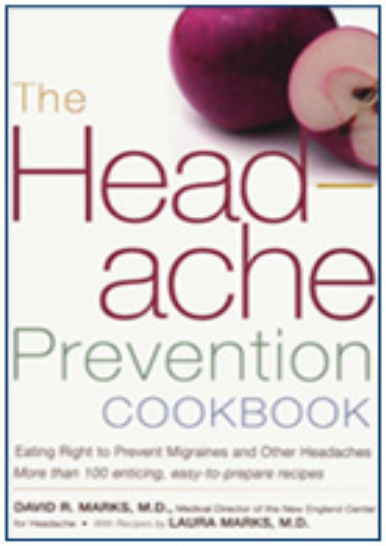
- Recurrent attacks lasting 4 to 72 hours of headache with at least 2 criteria:
  - Unilateral
  - Moderate to severe
  - Pulsating
  - Exacerbated by usual physical activity
- **and**
  - nausea and/or photophobia/phonophobia.

Migraines

- Often accompanied by the urge to sleep
- May wake the patient at night.
- About 1 in 5 patients have an aura
  - Aura – reversible focal neurological deficit usually preceding headache, but may be concurrent or, at times, occur with no headache (especially in later life)
  - Develops over 5 to 20 minutes, and lasts < 60 minutes.
  - Visual aura most common, e.g. scintillations, scotoma.
  - Sensory aura is also common e.g., migrating unilateral paraesthesiae that "march“
- Other neurological features such as dysphasia or weakness are less common
- Any patient with a long history of recurrent headaches with nausea – think of migraine.

Managament


SPLITTING HEADACHE?
Try THROBiNEX!
THROBiNEX
UNIVERSAL


The
Head-
ache
Prevention
COOKBOOK
Eating Right to Prevent Migraines and Other Headaches
More than 100 enticing, easy-to-prepare recipes
DAVID R. MARKS, M.D.,
LAURA MARKS, M.D.


DESCHIENS
WOLFS
RATTLE
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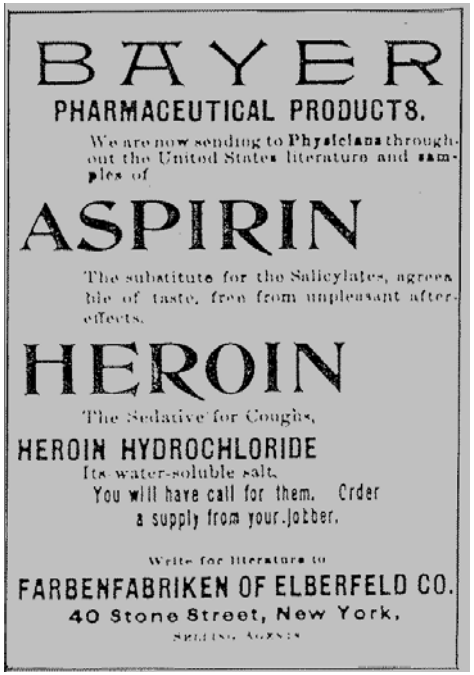
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We are now sending to Physicians throughout the United States literature and samples of
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The substitute for the Salicylates, agreeable of taste, free from unpleasant after-effects.
HEROIN
The Sedative for Coughs,
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You will have call for them. Order a supply from your Jobber.
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40 Stone Street, New York.

Management:
Medication overuse headache

- Education and ongoing support is crucial
- All analgesic medications need to be stopped in order for the headache to improve
- Abrupt withdrawal is preferred for triptans and simple analgesics
  - While the headache may initially be worse, most will experience improvement within 14 days
  - Some patients may not tolerate this and will need gradual withdrawal over 4 to 6 weeks.
  - Withdrawal may need to be planned for and deferred until an appropriate time.
- However for opioids, benzodiazepines and barbiturates, weaning is required

Management:
Medication overuse headache

- Bridging strategies while withdrawing from an opioid or triptan may include using an NSAID (e.g. naproxen MR 750 mg daily for 5 days) or short course of prednisolone, e.g. 50 mg daily for 3 days, then weaning over 7 to 10 days.
- Alternative…… what I use

- It may take up to 6 weeks to see an improvement
- If no improvement after medication has been stopped for 8 to 12 weeks, seek neurology advice

Management: Tension Headaches

- If headaches are **episodic**:
  - Explain and discuss diagnosis, and reassure the patient
  - Manage any stress, anxiety or depression
  - Provide advice on exercise, posture, cognitive behavioural therapy (CBT) and physiotherapy
  - Consider non-opioid medication e.g., paracetamol, NSAIDs, or aspirin, but limit to ≤ 2 to 3 days per week due to the risk of medication overuse headache, for a very short duration.

If the tension headaches are **chronic**

- Explain, reassure, and manage any stress, anxiety, or depression. Consider prophylactic medication:

1. Tricyclics:

   Amitriptyline is first choice. Start with a low dose (5 mg to 10 mg at night) and increase slowly to maximum of 75 mg over at least 6 weeks

   Nortriptyline 10 mg, increasing by 10 mg every 7 days up to maximum of 75 mg daily

   If anticholinergic side-effects are too much, consider dothiepin

2. Mirtazapine 15 mg to 30 mg per day.

3. Venlafaxine modified-release initially 75 mg orally up to 150 mg daily.

Consider non-pharmacological : CBT, relaxation therapy etc

MIGRAINE MANAGEMENT

1. **Lifestyle/ Behavioural**
   - **Identification and avoidance of trigger factors**
2. **Acute treatment**
3. **Prophylactic treatment**

Lifestyle/ Behavioural

Identification, avoidance or management of predisposing or trigger factors

- Stress, depression, anxiety
- Sleep deprivation or too much sleep
- Head or neck trauma
- Dehydration
- Excessive caffeine intake, caffeine withdrawal
- Hormonal changes e.g., combined oral contraceptive pill (COCP), pre-menstrual, or peri-menopause
- Certain foods/ drinks eg red wine, chocolate, cheese
- Bright lights, odor, physical activity…..
- Menstrual migraine

Migraines: Acute Treatment

- Analgesic with or without antiemetic

If not vomiting:

- Use short acting NSAID e.g:
- ibuprofen 400 to 600 mg, or aspirin 900 to 1000 mg orally stat (higher dose if tolerated), **and**
- paracetamol 1000 mg, **and**
- antiemetic at onset of migraine if nausea or anorexia likely

- Hit hard at the onset to avoid prolonged/chronic use of analgesics and risk of medication overuse headache

- Metoclopramide 10 to 20 mg orally promotes gastric emptying, helps improve absorption of analgesics, and reduces nausea

Migraines: Acute Treatment

Specific anti-migraine medications

- Triptans
  - Ineffective during aura and most effective at onset of head pain.
  - Take in combination with NSAIDs/aspirin and antiemetic as above.
  - 20 to 50% of patients who initially respond will have a rebound headache within 48 hours.
  - If this is an issue naratriptan may be better as it has a slower onset/offset.

- Can be safely used in combination with SSRIs and SNRIs, but still counsel about the symptoms of serotonin toxicity (e.g. agitation, muscle twitching/rigidity, sweating, diarrhoea) however this is rare

- If the first dose is ineffective, do not repeat. If initially effective but headache recurs, repeat the dose after 2 hours

- Limit to 2 days per week to avoid rebound headache and tolerance

- Do not give for 24 hours before or after dihydroergotamine therapy.

Migraines: Triptans

- Sumatriptan, 50 to 100 mg orally at onset, up to maximum 300 mg per 24 hours
- Rizatriptan 10 mg (tab or wafer) at onset, up to maximum 30 mg per 24 hours
  - This is useful in the event of early vomiting
- Eletriptan 40 to 80 mg orally, up to maximum 160 mg per 24 hours
- Naratriptan 2.5 mg orally up to maximum 5 mg per 24 hours
- Zolmitriptan 2.5 mg tablet at onset, up to a maximum of 5 mg in 24 hours
- Failure to respond to one triptan does not indicate a failure of the drug class. Other triptans may be effective

MIGRAINE PROPHYLAXIS:
WHO TO TREAT

- Recurring migraine that significantly interferes with the patient's daily routine despite acute treatment *(I like to think in terms headache days)*
- Failure, contraindication to, or troublesome side-effects from acute medications
- Overuse of acute medications
- Special circumstances, such as hemiplegic migraine or attacks with a risk of permanent neurological injury
- Very frequent headaches (more than two a week), or a pattern of increasing attacks over time, with the risk of developing medication overuse headache or rebound with acute attack medicines
- Patient preference

Migraine Prophylaxis

- Titrate slowly and trial each medication at adequate doses for 6 to 8 weeks
- In general, increase a prophylactic medication until either a satisfactory therapeutic effect is reached, intolerable side-effects occur, or maximum dose is reached
- Choice of prophylaxis is individually determined depending on tolerability and co-morbidities
- After 6 to 12 months of effective prophylaxis consider gradual withdrawal
- Ensure medication is available for acute attacks
- Try 2 or 3 agents before requesting neurology assessment

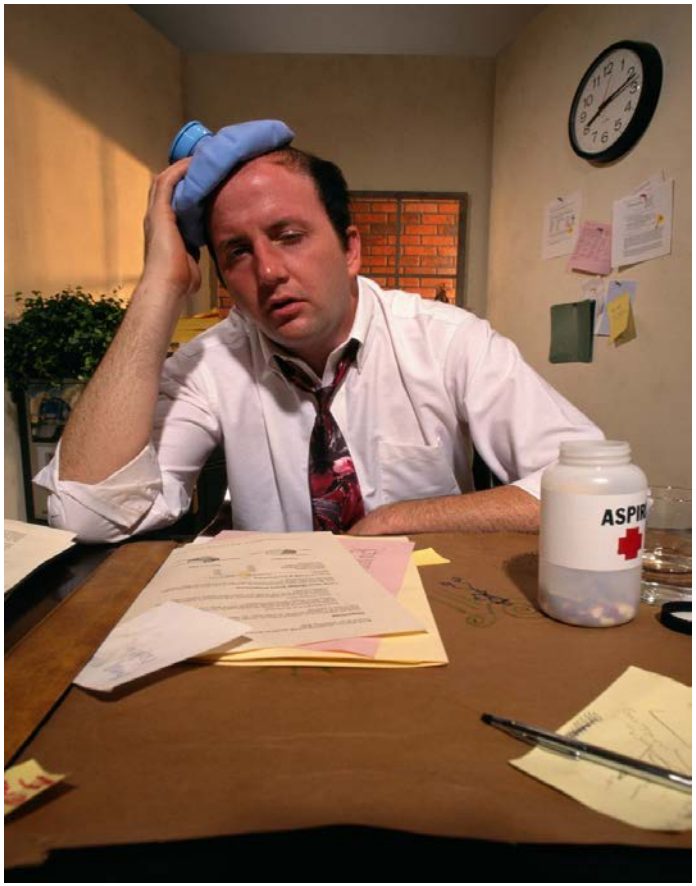
Migraine Prophylaxis

Drug	Avoid in	Prefer in
Beta blockers Propranolol – start on low dose e.g., 10 to 40 mg twice a day and slowly increase to maximal dose of 160 mg.	• Asthma • Diabetes • Bradycardia • Peripheral vascular disease • Co-use rizatriptan	• Co-morbid anxiety
Pizotifen Initially start 0.5 mg daily and increase to 3 mg.	Side effects have reduced its use: • Drowsiness • Weight gain	
Tricyclics Amitriptyline, start at 10 mg at night, and increase gradually up to maximum of 75 mg at night. Alternatively, consider nortriptyline and dothiepin.	• Acute angle-closure glaucoma • Prostatism	• Co-morbid depression • Co-morbid tension-type headache • Sleep disturbance
Topiramate Start at 25 mg at night, and increase by 25 mg every week up to maximum of 150 mg daily. Note – if increased above 50 mg this becomes a private script.	• Renal stones • Acute angle-closure glaucoma • Pregnancy • Depression • Decreased peripheral vision • Cognitive slowing • Co-use COCP (reduces efficacy at high doses)	
Sodium valproate Start 200 mg twice a day and increase by 200 mg weekly up to maximum of 1000 mg daily.	• Obesity • Liver disease • Women with PCOS • Pregnancy (risk of neural tube defects) – need to warn all women of child-bearing age	

Migraine Prophylaxis

- **Other medications:**
- Verapamil MR – some evidence for effectiveness. Start at 90 mg at night, and increase dose slowly over 3 weeks to maximum of 240 mg at night
- Candesartan – 4 mg daily increasing slowly up to maximum of 32 mg daily
- Magnesium, co-enzyme Q10 300 mg, riboflavin 400 mg. There is some evidence for effectiveness
- Feverfew/butterbur
- Acupuncture is often used for migraine and trials have shown reduction in the severity and frequency of episodes
- Botox has been approved for use by neurologists in patients with chronic migraine where 3 oral prophylactic medications have proven ineffective or poorly tolerated

Management of this patient?



Management

- Explain and educate, use written material
  - https://patient.info/health/headache-leaflet/medication-overuse-headache
- Identify each headache type if there are multiple headaches
- Agree on a plan for analgesic withdrawal
  - Rate of withdrawal
  - With or without bridging
  - Any medication that can be taken for rescue
- Following withdrawal of analgesics
  - Assess the headaches
- Consider concurrent treatment for tension type headache and migraines
  - May start a prophylactic medication concurrently

MG: Progress

- Started her on amitriptyline (TTH and migraine)
  - Unable to tolerate due to drowsiness
  - Nortriptyline - which she tolerated
- "What can I use if I am desperate?"
  - Metoclopramide
- Start by not using any additional PRN medication (panadeine forte, NSAIDs)
  - Tramadol 100mg bd, then 50mg bd, 50mg od, then cease
- After coming off, severe rebound headaches for the first 2 weeks
  - Metoclopramide not helping, ceased
  - Prednisolone 50mg for 3 days, then wean off
  - Chlorpromazine 25 mg tds (ECG ok) for 2 weeks
- After 8 weeks: about 1 headache/ week
  - unilateral temporal pulsatile, associated with nausea, photophobia
  - Acute treatment – Brufen, Paracetamol
  - Started topiramate (unable to have propranolol and did not want pizotifen)

MG: Current status

- Currently headache-free on topiramate 75mg bd (private script)
- Episodic migraine 2-3x/ year: uses acute treatment
- Occasional tension headaches, severity 5/10: does not take any meds
- Stable for the past 18 months, too afraid to wean topiramate
- Has ceased amitriptyline
- On Escitalopram 10mg for depressive symptoms (? Topiramate)
- Took about 12 months to get to this point

Aimovig (Erenumab)

- Human monoclonal Ab against calcitonin gene-related peptide receptor (CGRP-R)
  - Given as a monthly sc injection 70mg
- Calcitonin gene–related peptide (CGRP) is involved in the pathophysiological mechanisms underlying migraine through nociceptive mechanisms in the trigeminovascular system
- In a 3-month study, ~40% of people with chronic migraine* taking Aimovig cut their monthly migraine days by 50% or more (vs. 24% for placebo)
- In a 6-month study, up to 50% of people with episodic migraine† taking Aimovig cut their monthly migraine days by 50% or more (vs. 27% for placebo)
- FDA- approved, awaiting final clearance by TGA
- Product familiarisation programme will start in October for Neurologists and Pain specialists

Don’t just grin and Bear it!

Thanks!