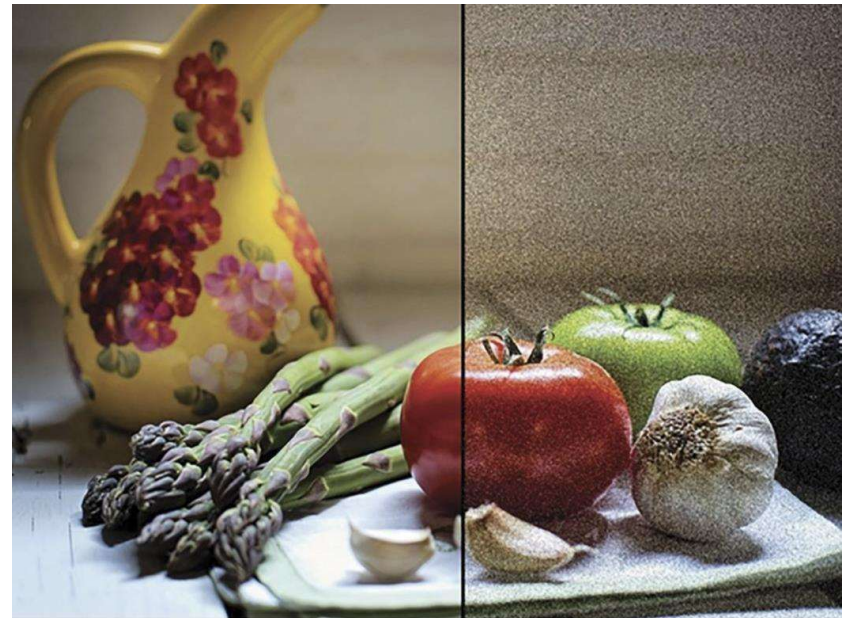


## CASE 2

- 25-year-old
- Constant 'static' in front of eyes
- After images when object moves
- Visual trailing
- No headache
- On oral contraceptive pill
- ? Safe to continue or not

# VISUAL SNOW

- Recently described
- Visual static
- Palinopsia
- Photophobia
- Nyctalopia



## \*Migraine Management – Acute ( Non-triptan)

Drug	Dose	Max dose 24 hours
Paracetamol	1000 mg	4000 mg
Ibuprofen	400-600mg	2400 mg
Aspirin	600-1000 mg	4000 mg
Naproxen	250-500 mg	1000 mg

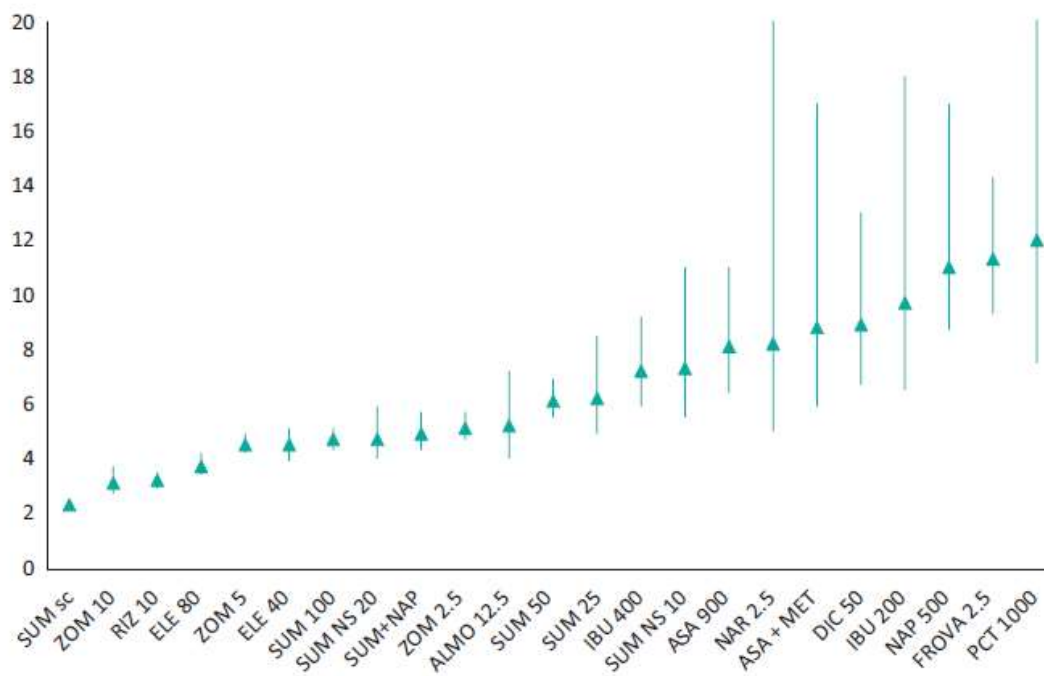
\* Based on RCT data / At least 2 international treatment guidelines

\*Migraine  
Management –  
Acute (Triptans)

- \* Based on RCT data / At least 2 international treatment guidelines
- \*\*Drug interaction Rizatriptan/Propranolol- use 5 mg instead

Drug	Dose	Max dose 24 hours
Sumatriptan oral	50-100 mg	300 mg
Sumatriptan injection	6mg	12 mg
Rizatriptan**	10 mg	20 mg

# How well do analgesics work?



**Fig 1. NNTs for two-hour pain freedom for acute migraine.**

ALMO = almotriptan; ASA = aspirin; DIC = diclofenac; ELE = eletriptan; FROVA = frovatriptan; IBU = ibuprofen; MET = metoclopramide; NAP = naproxen; NAR = naratriptan; NNTs = numbers needed to treat; NS = nasal spray; PCT = paracetamol; RIZ = rizatriptan; SUM = sumatriptan; ZOM = zolmitriptan.

## When to use preventives in migraine

- Preventive treatment should be offered as an option to patients with **4 or more migraine days a month** as this frequency is associated with **significant disability**. Such an approach will also mitigate the risk of escalation of acute treatment and consequent development of medication overuse headache. Acute treatment on more than 2 days per week is associated with **medication overuse**, which **renders preventive treatment less effective**
- As there are relatively few head-to-head comparative studies, the choice of preventive depends primarily upon the side-effect profile of the drug and co-existing morbidities

# Preventives- Episodic and Chronic Migraine

- Based on RCT data / At least 2 international treatment guidelines
- Sodium valproate/Pizotifen-weight gain
- \*Chronic migraine

<b>Drug</b>	<b>Dose</b>	<b>Titration</b>	<b>Trial Study dose</b>
Amitriptyline	10-25 mg	10-25 mg	25-150 mg
Propranolol	10 mg BD	10-20 mg	120-240 mg
Topiramate	25 mg	25 mg	25-200 mg
Candesartan	2 mg	2 mg	8-16 mg
Botox*	155 u every 3/12		

# DOSE TITRATION

- Preventive medications must be **titrated slowly to an effective or maximum tolerable dose** and continued for at least 6-8 weeks to adequately assess effect
- A **headache diary** may help evaluate response to treatment. Monitor quality of life through validated tools such as **HIT-6**
- Consider gradual withdrawal after 6-12 months of effective preventive



# BOTOX RCT – PREEMPT 1 AND 2

- PREEMPT – 2 (31 x 5 = 155 ± 40)
  - 24 week DB PG 2 cycles 12 weekly Botox/Placebo
  - 32 week OL 3 cycles at 24,36, 48 weeks
  - N=705 59-64% tried  $\geq 1$  preventive Rx
  - **Primary outcome** – mean change in headache days from baseline to 24 week (**achieved**)
  - Even headache episode change was significant

# RCT – PREEMPT POOLED

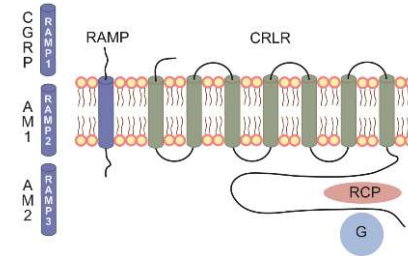
- N = 1384 (31 x 5 = 155 ± 40)
  - 24 week - Headache episodes (-8.4 vs -6.6, p <0.001)
  - 24 week - Headache days ( -9.0 vs -6.7, p <0.001)
  - 56 week completing 5 cycles all significant
    - Headache and Migraine days / episodes



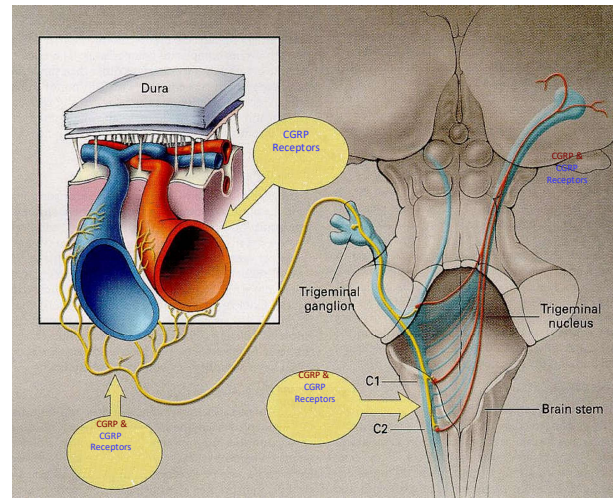
migraine  
trust  
international  
symposium



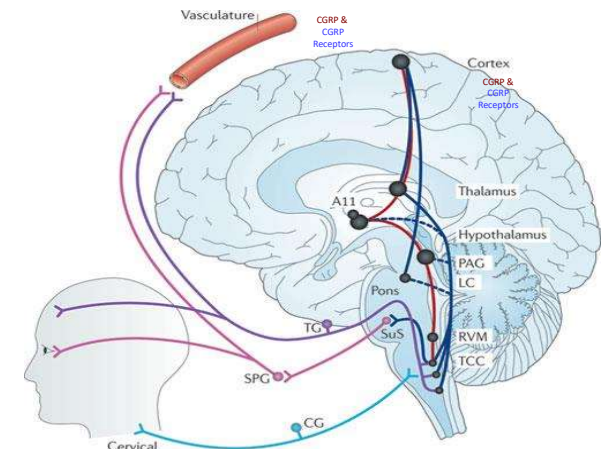
## Calcitonin Gene Related Peptide (CGRP) Evidence for a Role in migraine pathophysiology



- Large molecule - 37 AA neuropeptide
- Acts via CLR & Calcitonin Receptor (CL) with RAMP1 (Receptor activity modifying protein)
- CGRP receptors
  - Sensory nerves – nociceptive
  - Perivascular nerves
  - Trigeminal Ganglion & DRG
  - Brainstem nuclei
  - Thalamus
- Co-localised with Substance P
- Potent vasodilator
- Involved in pain neurotransmission



Russell et al. *Physiol Rev* 2014



Akerman et al. *Nat Rev Neurosci.* 2012