Brigham and Women's Hospital
Founding Member, Mass General Brigham

Advances in the Diagnosis and Management of Headache

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DISCLOSURES

Dr. Bernstein consults for Percept and receives research support from Teva Pharmaceuticals.

OBJECTIVES

Understand	Understand evaluation of headache, primary vs. Secondary
Recognize	Recognize Red Flags
Become	Become familiary with whole person headache care
Understand	Understand CGRP as a target
Learn about	Learn about new migraine medications
Review	Review devices
Recognize	Recognize use of integrative therapies

Categories

Primary
- migraine
- TAC

Secondary
- mass
- infectious
- stroke

Red Flags

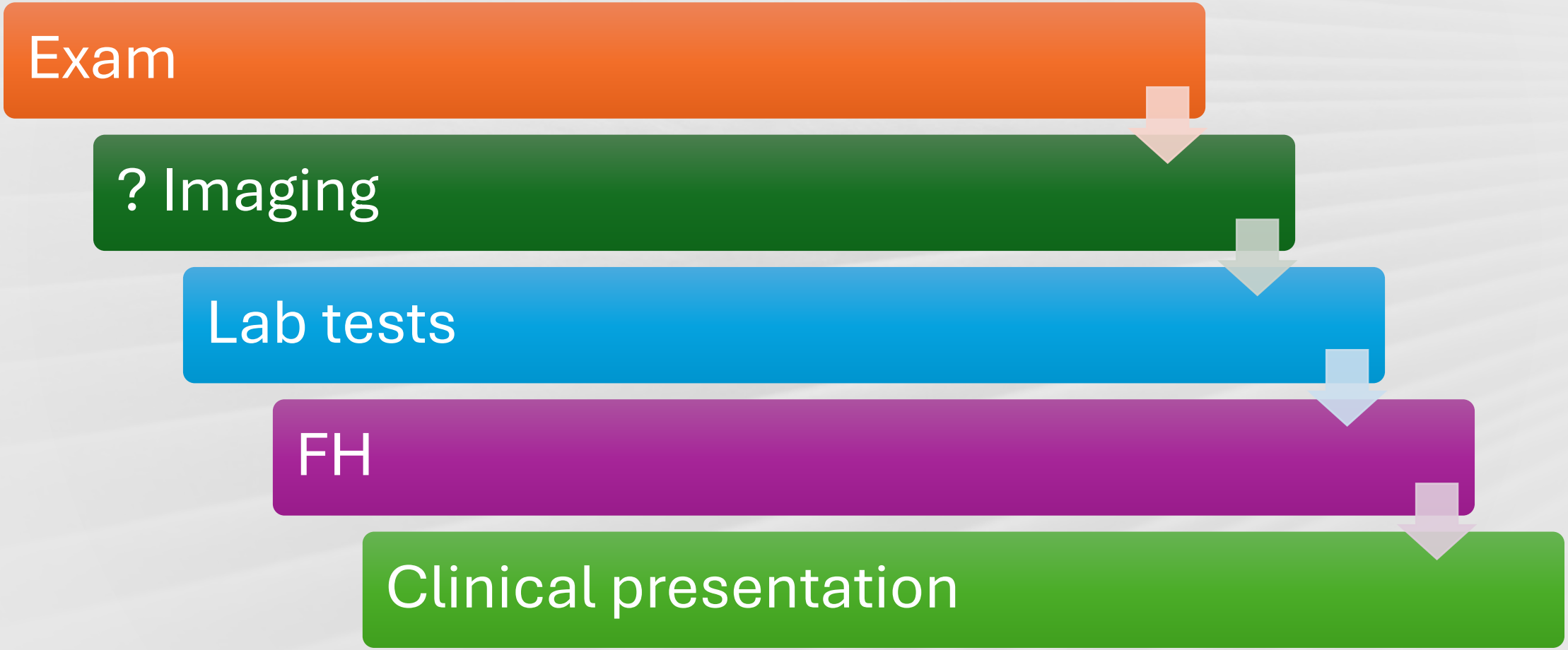
New and different

First and worst

Focal features

Ecology of patient

Work-up



Whole Person Headache Care

TREATMENT DECISIONS SHOULD BE SHARED

DEPENDS ON CAUSE OF HEADACHE

ETIOLOGY, PATHOPHYSIOLOGY

URGENCY

Migraine

- 42 million people in US
- Women constitute 60 percent of patients
- Significant burden of disease

Definition of Migraine

Diagnostic criteria:

At least five attacks[1] fulfilling criteria B-D

Headache attacks lasting 4-72 hr (untreated or unsuccessfully treated)[2;3]

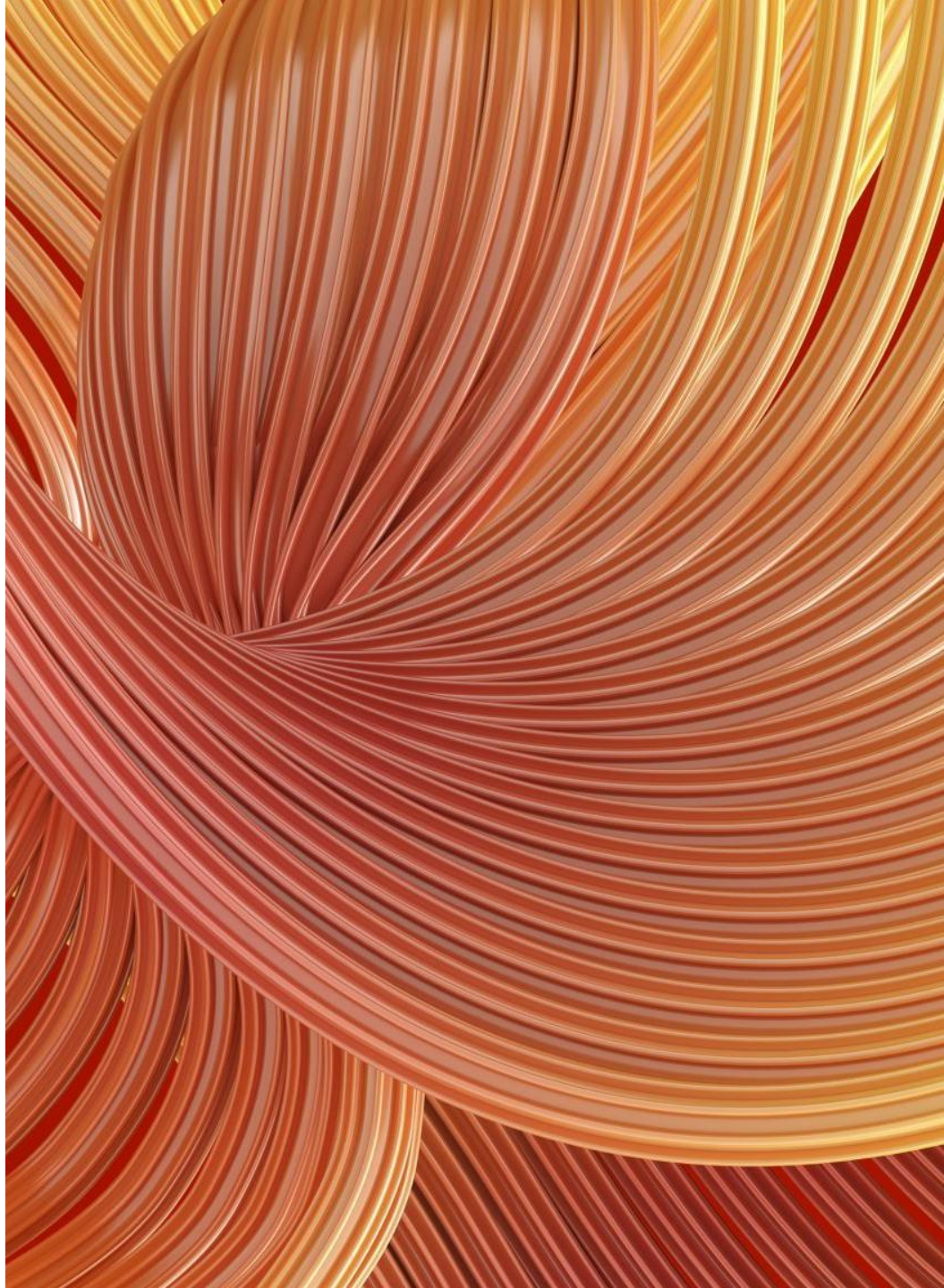
Headache has at least two of the following four characteristics:

- unilateral location
- pulsating quality
- moderate or severe pain intensity
- aggravation by or causing avoidance of routine physical activity (eg, walking or climbing stairs)

During headache at least one of the following:

- nausea and/or vomiting
- photophobia and phonophobia

Not better accounted for by another ICHD-3 diagnosis.



Variants

- Aura
- Hemiplegic
- Acephalgic
- Chronic

Assessment

- Phenotype description
- Frequency
- Family history
- Neurologic exam
- Need for imaging or further work-up

Treatment

- Medication
- Integrative
- both

No biomarkers to predict response

Ecology of the patient eg comorbidities, family planning

Acute Medication vs. Preventive

How to decide?

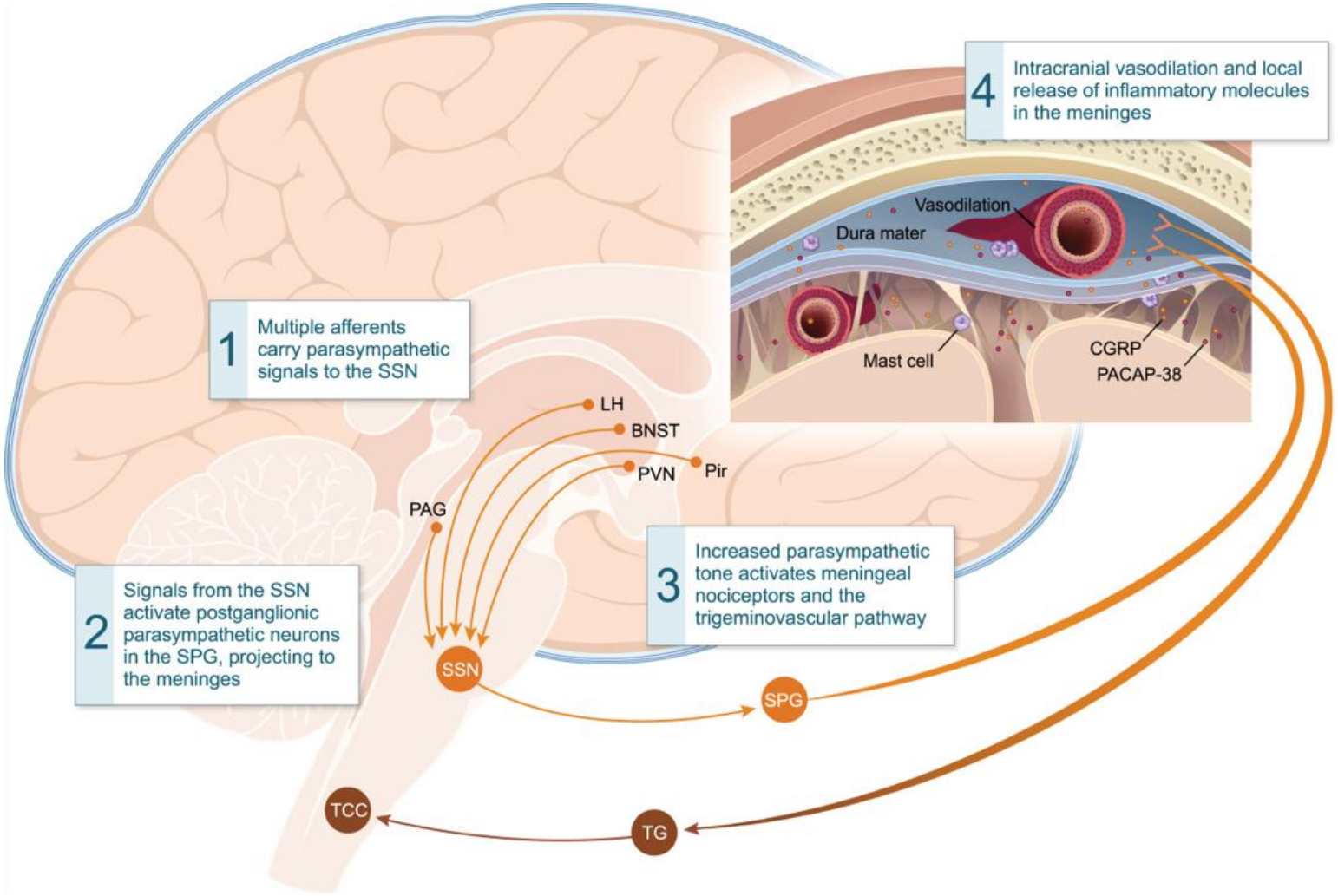
Often patients need both

Patient's own desires—*shared decision making*

Doesn't have to be binary

CGRP targeting treatments

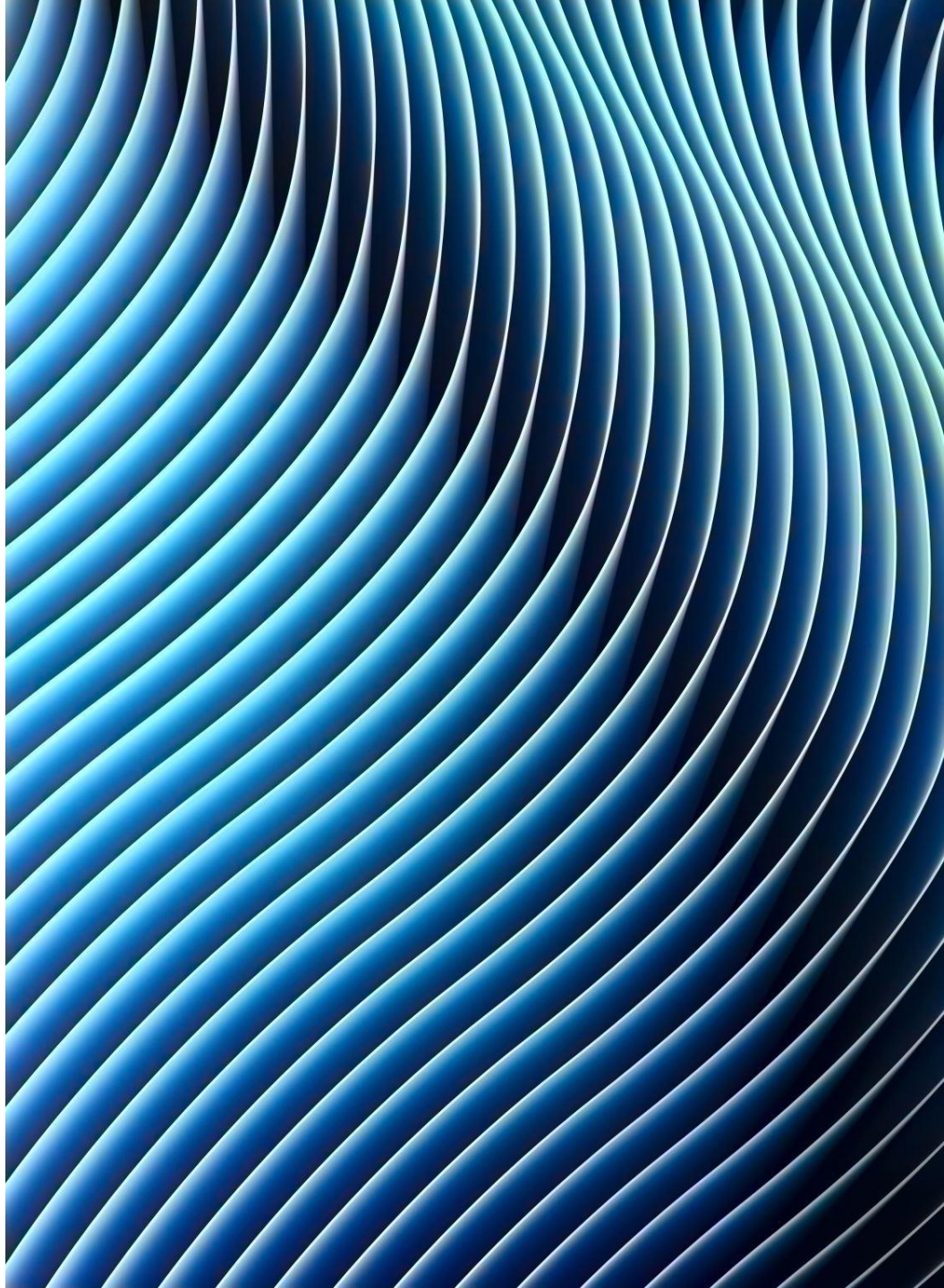
- Why this target?
- Where is CGRP?
- How does it affect migraine?



Headache: The Journal of Head and Face Pain, Volume: 58, Issue: S1, Pages: 4-16, First published: 26 April 2018, DOI: (10.1111/head.13300)

CGRP Monoclonal Antibodies

- Erenumab—
- Galcanezumab
- Fremanezumab
- Eptinezumab



Injectables

- Side effects
- Exclusions
- Monitoring
- dosing

Gepants--antagonists

- Atogepant
- Rimegepant

Dosing

Patient selection

Risk with contraception

Acute treatments

Gepants-Ubrogepant, zavegepant

Ditans-lasmiditan

New warning on these meds

HTN

Raynaud's phenomenon

Not studied for over age 65

TACS

Cluster

SUNCT

SUNA

Hemicrania

Hemicrania

Is the headache indomethacin responsive?

Side-locked

Cluster

Galcanazemab evidenced and approved

300 mg q month

Episodic vs chronic

Non-pharmacologic options

- Acupuncture
- Craniosacral therapy
- Chiropractic care
- Mindfulness
- Stimulators

Acupuncture

- Effect on inflammation
- Covered by many insurers
- Several treatments but doesn't have to be continuous

Chiropractic

Screen patients

Can help with neck pain, craniocervial headache

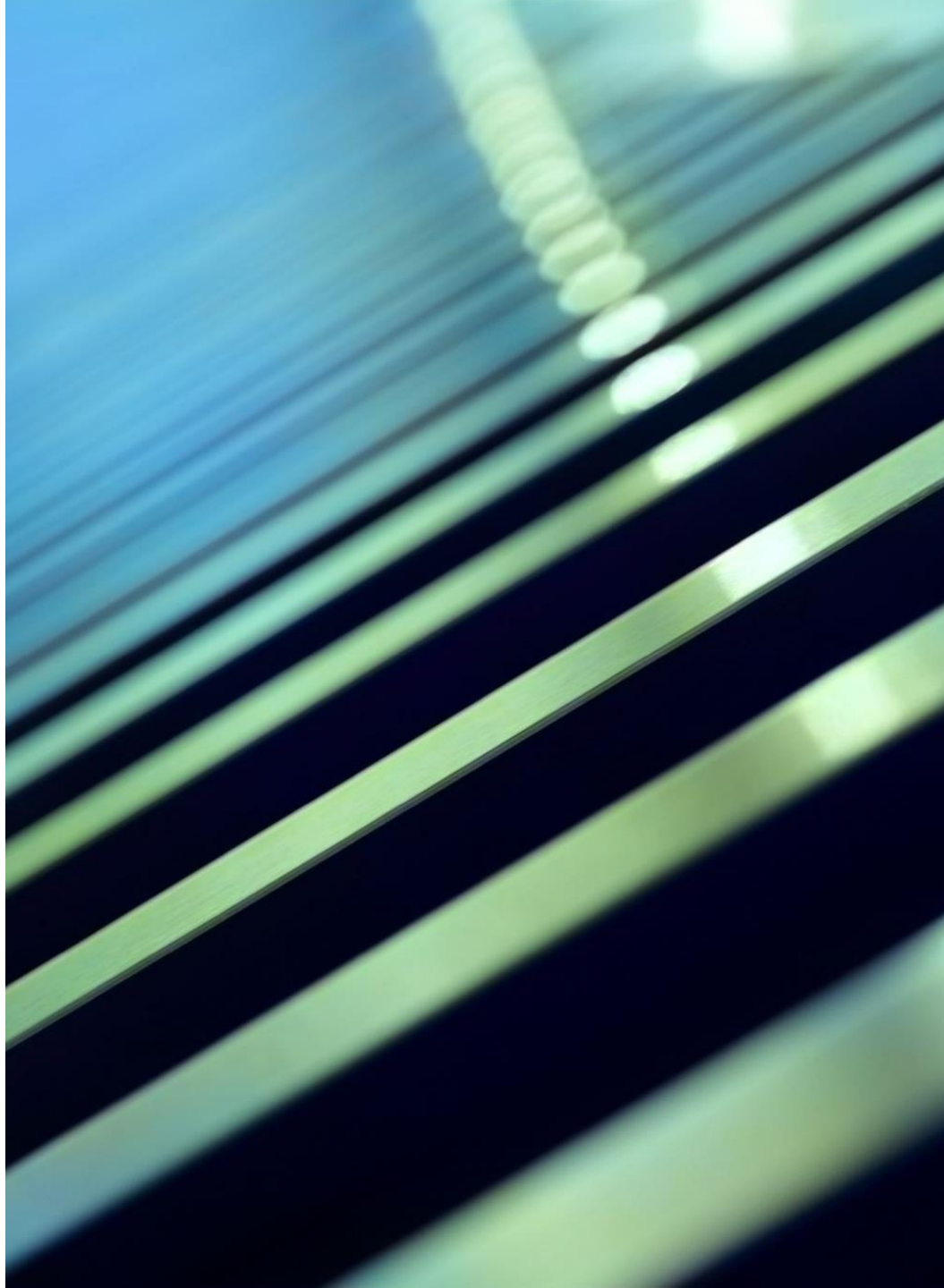
Again, not ongoing

Craniosacral therapy

Regulation of cranial rhythm

Gentle hands on

Not covered



Nutrition

- No specific diet
- Steady nutrient supply
- Hydration
- Migraine avoidance: no science to evidence

Mindfulness

Biobehavioral therapies

CBT

MBSR

ACT

Lots of research

Additive perhaps?

Cefaly

Nerivio

Outcomes

Scales

Diaries

Quality of life

AHS Consensus Guidelines

CGRP targeting medications as first line for migraine

Shared decision making

Reasonable goals

Potential new targets

- PACAP 38 pituitary adenylate cyclase-activating polypeptide
- VIP pituitary adenylate cyclase-activating polypeptide
- Amylin
- Adrenomedullin
- NO (nitric oxide)
- Others
- All in active studies

Summary

- Headache should be diagnosed and classified prior to starting treatment.
- New treatments exist, in particular for migraine, that are targeted, safe and effective.
- Medication should be divided into acute and chronic categories
- Patients need to keep metrics around frequency, treatment and function.
- Consider non-pharma treatments along with medication

References

1. https://ichd-3.org/
2. Wattiez AS, Sowers LP, Russo AF. Calcitonin gene-related peptide (CGRP): role in migraine pathophysiology and therapeutic targeting. Expert Opin Ther Targets. 2020 Feb;24(2):91-100. doi: 10.1080/14728222.2020.1724285
3. Jairo Hernandez, Eduardo Molina, Ashley Rodriguez, Samuel Woodford, Andrew Nguyen, Grace Parker, Brandon Lucke-Wold. Headache Disorders: Differentiating Primary and Secondary Etiologies. J. Integr. Neurosci. 2024, 23(2), 43. https://doi.org/10.31083/j.jin2302043


Tremendous progress!
More to come