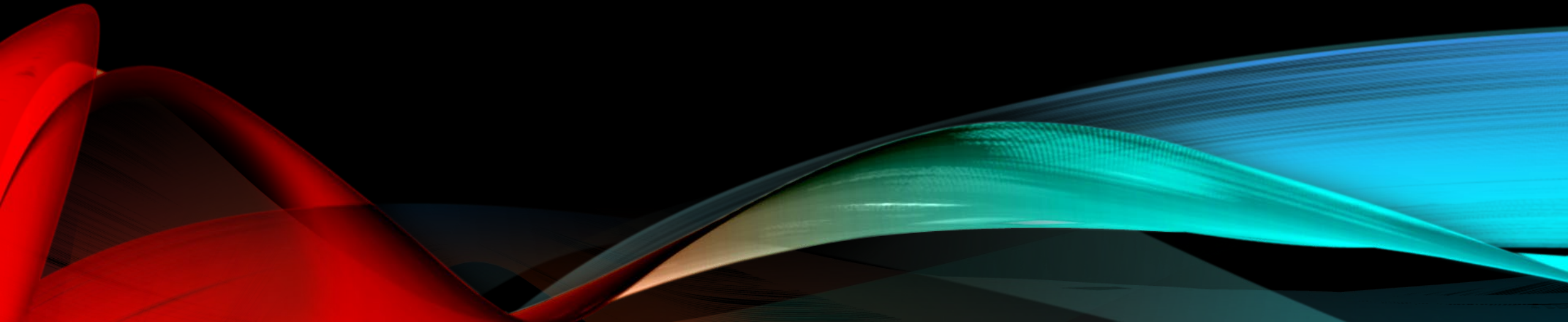


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April 16, 2024

CONCUSSION: HEADACHE TYPES AND TREATMENT

INTERNATIONAL CLASSIFICATION OF HEADACHE DISORDERS- 3RD EDITION (ICHD-3)

Headache attributed to trauma or injury to the head and/or neck



POST-CONCUSSION SYNDROME

- Isolated headache
- Headache with :
 - Dizziness
 - Fatigue
 - Reduced concentration
 - Psychomotor slowing
 - Mild memory loss
 - Insomnia
 - Anxiety
 - Personality changes
 - irritability



HEADACHE TYPES

- Tension type headache
- Migraine (with and without aura)
- Persistent headache attributed to whiplash
- Medication overuse headache

MIGRAINE WITHOUT AURA

A. At least 5 attacks fulfilling criteria B-D

B. Lasting 4-72 hours

C. At least 2/4 of :

- unilateral location

- pulsatile

- moderate to severe

- worsened by or avoidance of simple activity

D. At least one of:

- nausea/vomiting

- light/noise sensitivity

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

TENSION TYPE HEADACHE

- Bilateral
- Non-throbbing
- Mild to moderate severity
- No other associated features

PERSISTENT HEADACHE ATTRIBUTED TO WHIPLASH

- A. Headache fulfilling criteria C and D
- B. Whiplash, associated at the time with neck pain and/or headache, has occurred
- C. developed within 7 days after whiplash
- D. persists > 3mos after onset
- E. Not better accounted for by another ICHD-3 diagnosis

MEDICATION OVERUSE HEADACHE

- Headache >14 days/month for 3 months using;
- Simple analgesics >14 days/month for 3 months

OR

- Prescription analgesics > 9 days/month



TREATMENT

TREATMENT

- Concussion headache has primary headache type features
- Treatment is guided by the headache type identified by history
- Most patients have migraine features
- Treatment approach similar to migraine

ACUTE PAIN RELIEF

- Non-prescription simple analgesics
- Acetaminophen
- NSAIDS (Ibuprophen, Naproxen)
- Prescription analgesics
- Triptans (e.g. Sumatriptan etc.)
- NSAIDS (e.g. Naproxen, Diclofenac)
- NEW! Gepants (Ubrogepant)
- AVOID: combination analgesics
opioids

MEDICATION OVERUSE

- Simple analgesics
- No more than 14 days /month

- Prescription analgesics
- No more than 9 days/month



PREVENTIVE TREATMENT

GOALS OF PREVENTIVE RX

- Reduce
- Frequency
- Severity
- Duration
of attacks

AND

- Disability

PREVENTIVE TREATMENT

- Lifestyle

- Medications
 - 1st line
 - 2nd line



LIFESTYLE

- Sleep
- Nutrition and eating habits
- Fluid and caffeine intake
- Exercise
- Stress management

NON-PRESCRIPTION TREATMENT

- Riboflavin (Vitamin B2) 400 mg/d
- Magnesium 400 mg at bedtime
- Coenzyme Q10 200 mg/day

PRINCIPLES OF PREVENTIVE TX

- Start low and gradually increase
- Adequate dose (depends on specific drug)
- Adequate duration (2-3 months at target dose)
- Individualize to the patient re: comorbidities

COMORBIDITIES

- Insomnia
- BMI
- Depression/Anxiety
- Asthma

FIRST LINE

- Tricyclic antidepressants (amitriptyline, nortriptyline)
- Beta-blockers (propranolol, nadolol)
- Anti-seizure medications (topiramate, gabapentin)
- Anti-hypertensives (candesartan)
- SSRI (venlafaxine, sertraline)

SECOND LINE TX

- OnabotulinumtoxinA (BOTOX)
For Chronic migraine (headache 15+ days/mth for 3 months)

CGRP monoclonal antibodies (e.g. erenumab, galcanezumab, fremanezumab, eptinezumab)

Injectable, once/mth or every 3 mths

For both episodic and chronic migraine

Gepants (e.g. atogepant)

Oral

Approved only for episodic migraine in Canada

CONCLUSION

- Post-concussion headache is challenging to treat
- Approach includes a careful history to identify headache features, comorbidities, risk factors
- A holistic approach is needed
- More research is needed

TAKE HOME POINTS

DO

- Maintain healthy lifestyle
- Consider a preventive medication
- Practice stress management
- Exercise

DON'T

- Forget comorbidities
- Overuse analgesics

THANK-YOU!

