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Headaches and Dizziness - Concurrent Workshop Repeated

Saturday, 22 June 2013

Start 2:00pm

Start 3:05pm

Duration: 55mins

Duration: 55mins

Baytrust

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Rotorua GP CME 2013

NZMA
New Zealand Medical Association

General Practice Conference & Medical Exhibition

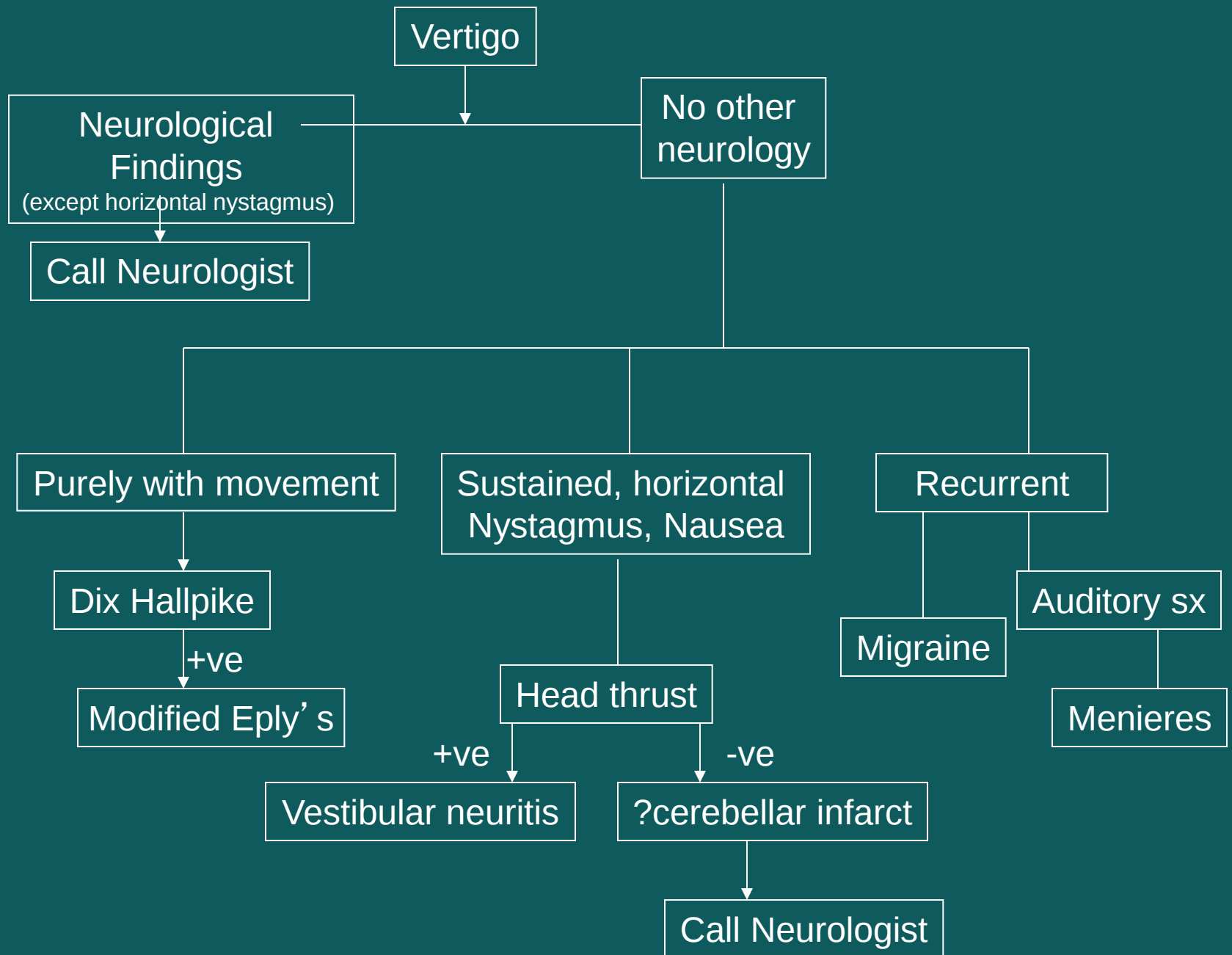
20-23 June 2013 | Energy Events Centre | Rotorua

Dizzy and Headache

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Dizzy

- Pre-syncope
- Dys-equilibrium
- Vertigo



A 45 year old presents with dizziness. She has intermittent episodes of spinning lasting minutes. The spells are associated with ringing in the left ear. They are worse with movement. Some are associated with headache.

- Do you want to do:
 - Dix-Hallpike manoeuvre ?
 - Hearing tests?
 - MRI brain?
 - More history?

A 80 year old has been in hospital with a urinary tract infection. On returning home he has lost his balance. A CT head scan in hospital showed diffuse white matter changes consistent with ischemia, and he was diagnosed with stroke. He describes a disturbance of vision where the world appears to move or be unsteady.

do you want to?

- Get an MRI
- Get his drug chart and check his renal function?
- Do a Romberg test?
- Do a head thrust test?
- Hyperventilate?

a 32 year old presents with sudden onset dizziness. Within a minute she had difficulty finding words. It started one hour ago. She is upset, hyperventilating, tearful and speaking short, two-word sentences. Her partner is with her and is very worried. After a minute she is much more relaxed and talking better. She has dysphasia, but the rest of the neurological examination is normal. She is otherwise fit and well, a non-smoker, and she has no significant family history.

Is this:

- Stroke?
- Migraine?
- Vestibular neuronitis?
- Hyperventilation?
- Multiple sclerosis?

Headache

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A 22 year old woman has 2 types of headaches since age 17.

One type occurs about twice per week. It is a dull occipital pain associated with an aching stiff neck lasting 5-8 hours. It is eased by chiropractic manipulation. Sometimes it never really goes away.

The other type occurs about once per month - sometimes with menstruation. The pain is frontal, severe, and often on one side or the other. It is made worse by effort. It is often associated with nausea and sometimes vomiting. She is intolerant of noise and light. She usually takes to her bed; if she sleeps the pain eases.

- what is/are the diagnoses?
- how would you manage her?

Migraine

- 94% pts seen in primary care settings for HA have migraines
- Familial
- 17 – 18.2% of adult females. Onset puberty
- 6 – 6.5% adult males. Onset 20-30
- Peaks ages 22-55.
- 1/2 migraine sufferers not diagnosed.

Common misdiagnoses for migraine:

- Sinus HA
- Stress HA
- Referral to ENT for sinus disease and facial pain.
- New glasses
- Pulled teeth

Migraine is a hypersensitivity disorder

- Migraineurs more likely to have motion sickness.
 - Half of Meniere's patients have migrainous symptoms.
- Photophobia
- Osmophobia
- Phonophobia
- Allodynia

Migraine is a genetic disorder

- ~70% positive family history
- Rs1835740 marker on 8q22.1
- Located between two genes involved in glutamate homeostasis

Modifying and Precipitating factors

- stress
- head and neck infection
- head trauma/surgery
- caffeine withdrawal
- aged cheese
- dairy
- red wine
- nuts
- shellfish
- vasodilators
- perfumes/strong odors
- irregular diet/sleep
- light

Migraine

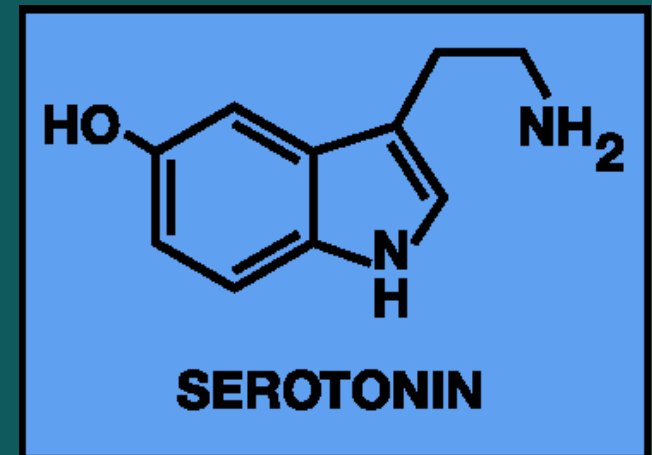
- A genetically-based hypersensitivity disorder that is modified by environmental factors

Migraine

- A genetically-based hypersensitivity disorder that is modified by environmental factors
 - Excuses the patient from blame
 - Explains associated symptoms
 - Justifies the addressing of associated factors, but indicates why this is only partially successful

Serotonin

- Important role in migraine pathogenesis.
- Mechanism of action in migraines not well established.
- Main target of pharmacotherapy.



What happens?

- 549 Danish patients over 12 years
- Migraine
 - 42% remission
 - 38% low frequency
 - 20% poor outcome
 - (predictors: high frequency, age <20)
- TT headache
 - 45% remission
 - 39% frequent
 - 16% poor outcome
 - (predictors: co-existing migraine, unmarried, poor sleep)

Progression of migraine

- 6% move from low-frequency into high-frequency episodic migraine/year
- 3% episodic to chronic migraine / year

Chronic daily headache

- 3-4% of adults
- Chronic tension-type headache
- Transformed migraine
 - Drug-induced headache
- Often cutaneous allodynia
- Transformation rate ~2.5%/year

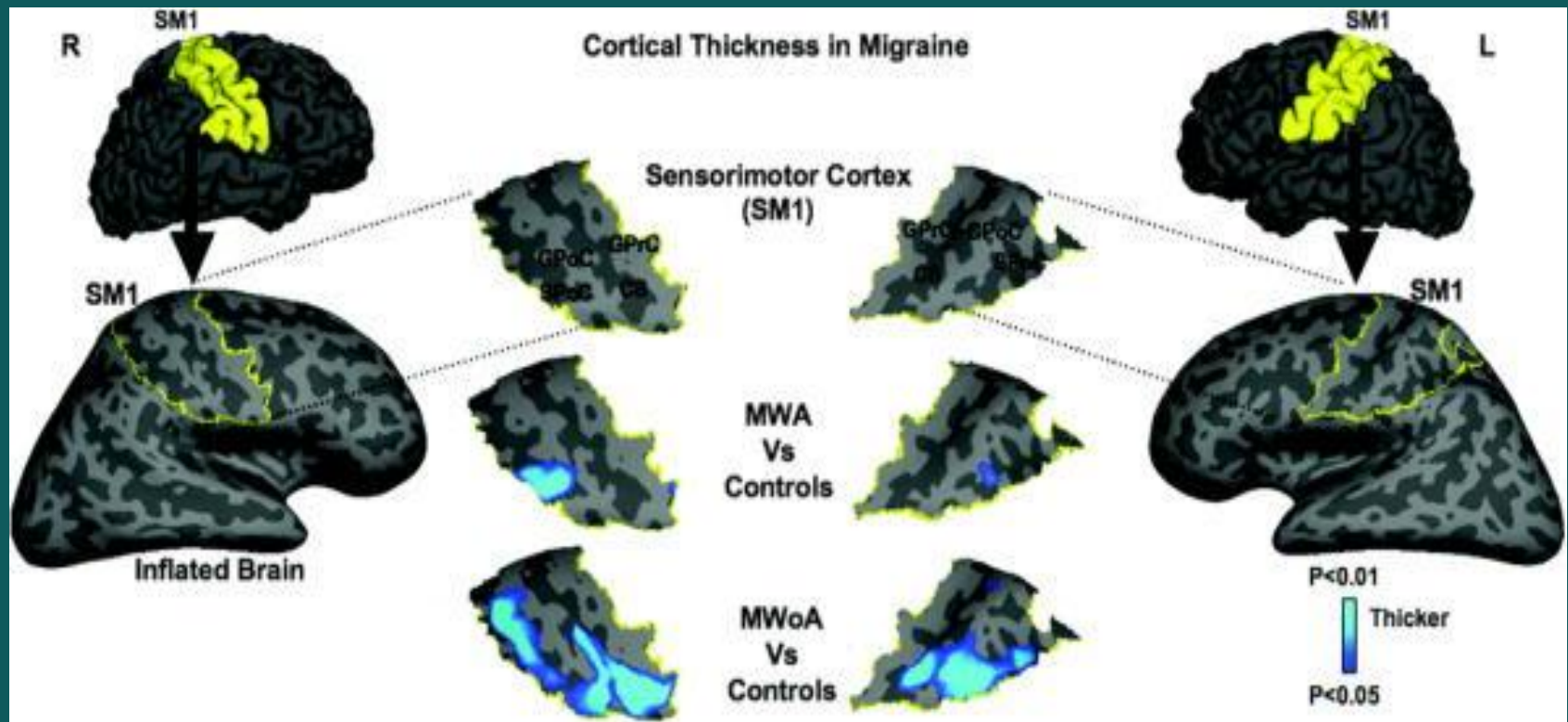
Risk of Transformation

- lower levels of education and household income.
- older
- higher body mass indexes
- snoring
- anxiety
 - (depression accounted for by disability)
- stressful life events
- high baseline attack frequency
- overuse of certain classes of medication
- caffeine overuse
- head injury
- allodynia

Drug-induced headache

- >8 days/month opiates
- >10 days/month tryptans
- NSAIDS protect at frequency of <10 days/month, but exacerbate in high frequency >15 days
- Worse on analgesic withdrawal

Migraine may lead to structural brain lesions



White matter lesions on MRI

- subclinical infarcts in the posterior circulation (OR: 13.7; CI: 1.7, 112)
- Female migraineurs increased risk of white matter lesions (OR: 2.1; CI: 1.0, 4.1)
- higher prevalence of brainstem hyperintense lesions (4.4% vs. 0.7%, $P = 0.04$)

Potential causes of brain lesions

- increased coagulation
- vasoconstriction
- local excessive neuronal activation
- neurogenic inflammation
- neuropeptide and cytokine release
- cardiac abnormalities
 - patent foramen ovale (PFO)

Vascular disease and Migraine

- Migraine increases risk of stroke by 1.73 (2.08 in women)
- Aura 2.2, no aura 1.2
- Increased risk of myocardial infarction and other vascular disease (approx 2)

Migraine treatment

- Control pain
- Control other symptoms
- Prevent attacks
- Prevent progression to CM
- Prevent co-morbidities

Treatment

- determine the frequency and duration of attacks
- determine associated symptoms
- consider triggers, especially stress
- think about the time-linked headaches

Treatment

- Non-pharmacologic management
 - exercise
 - normalize sleep
 - address stress
 - (?biofeedback, relaxation techniques)

Treatment

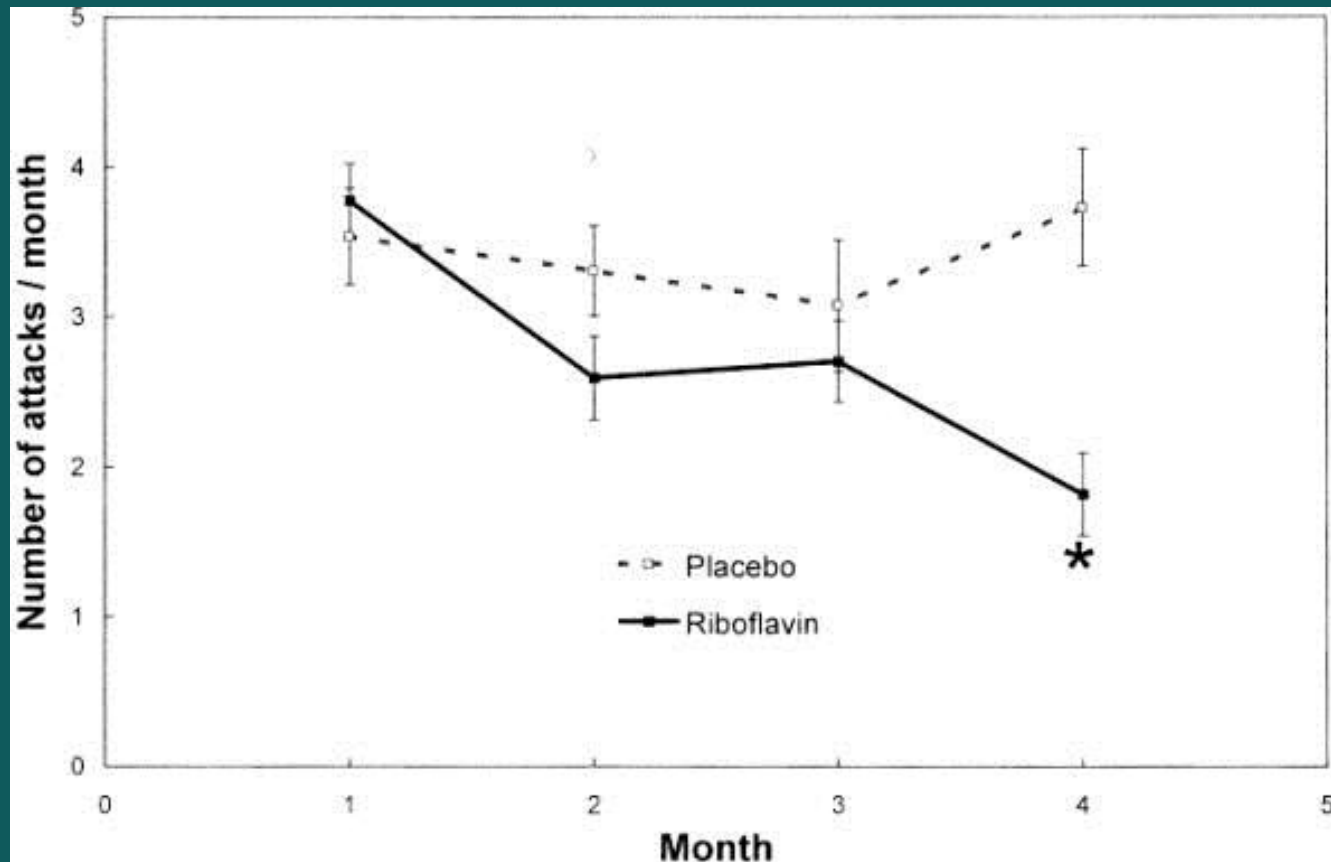
- Abortive therapy - high dose and early
 - paracetamol
 - NSAIDs
 - sumatriptan, rizatriptan, zolmitriptan
 - metoclopramide, prochlorperazine

Treatment

- Prophylaxis - high dose and for a month at least
 - riboflavin
 - tricyclic antidepressants
 - beta-blockers
 - topiramate
 - calcium antagonists
 - valproate
 - gabapentin
 - (MAO inhibitors, other anticonvulsants, methysergide)
 - Botulinum toxin

Riboflavin

- 55 patients. RCT



Schoenen. Neurology 1998

