The Drug Treatment of Migraine

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Outline of talk

• Types of drugs
• How they are developed
• Drugs for migraine
What is a drug? Something that is not found in the body.
How can we obtain drugs?

- Unregulated/regulated
- Pharmacies under pharmacist control
- Medical prescription
  - Licensed
  - Off licence
  - Unlicensed
Confusing terminology

- Generic or propriety
- (Sumatriptan/Imigran)
Drugs - How is care organised

- Self help
- Pharmacists
- GPs
- GPs with a special interest
- Neurologists
Options for drug treatment

Need to stop it when fired up – acute treatment
Need to stop it starting - preventative
What is happening in Migraine?
What is happening in Migraine?
Placebo effect

How do we know if a drug works?
Stages in developing a drug

- Obtain a suitable molecule
- Test it in animals for benefit and harm
- Test it in a small number of normal volunteers
- Test it in a small number of people with the problem
- Test it in a large number of people with the problem (RCT)
- Licence the drug
- Market the drug
Is a drug worth paying for?
Opportunity cost, £20,000 per QALY
Drugs that don’t help
Medication overuse headache
*pain killers on 15 days or more of month*

Increased frequency of headache, associated with increased frequency of analgesia use.

Withdrawal of all analgesia

Daily headache with spikes of more severe pain

Return of episodic headache

- Migraine attacks
- Frequent ‘daily’ headaches
Acute Treatment
Migraine treatment

Acute

- **Pain killer** – Paracetamol X2
- **Anti-inflammatory** - Aspirin 300mg X2
- **Anti-sickness** – domperidone, metochlorpropamide, prochlorperazine
- **Migraine specific** - Triptan
IMIGRAN™
(sumatriptan)
TABLETS · NASAL SPRAY · INJECTION
YOU KNOW HOW GOOD IT IS
Heathrow

to Hong Kong

and her migraine
headache didn’t take off

Taken
early after the
onset of a migraine
headache, one 2.5mg dose of
Migard can achieve a sustained
resolution or attenuation of the headache
helping the sufferer continue their day. And at
only £2.95 per dose it’s good news for prescribers too.

Long haul efficacy. Short haul price.
Triptan Half Life

- Sumatriptan: 2.5
- Rizatriptan: 2.5
- Naratriptan: 6
- Zolmitriptan: 3.25
- Almotriptan: 3.5
- Frovatriptan: 26
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<thead>
<tr>
<th>Product</th>
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<tr>
<td>Sumatriptan 100mg</td>
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<tr>
<td>Frovatriptan</td>
<td>£2.95</td>
</tr>
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Failure respond not class effect
Don’t help aura

Not over 65

Not if history of vascular disease

Nasal spray, injection
Migraine treatment

Acute

- Steroids
Prevention
Prevention – all found by chance

- Allow eight weeks to judge effect
- Take for at least 6 months
Migraine treatment - Preventative

- Beta blocker ++ (L)
- Pizotifen + - (L)
- Amitriptyline +
- Sodium valproate +
- Topiramate ++ (L)
- Calcium antagonists + -
- Montelukast + -
- Candersartan +
Oestrogen

- Menstrual pure - 7% sufferers
  - 35% worse at time of period

- Peri-menopausal problematic
Migraine treatment - Preventative

Figure 3. Occipital nerve block. Via a needle inserted at the base of the skull, an anesthetic agent is injected around the origin of the greater occipital nerve.
Botox

- Chronic migraine – 15 days a month, eight days migraine
- Three failed preventors
On the horizon

• CGRP antagonists
Choosing the right drug
Choosing the right drug

• Where is the best evidence?
• What gives value for money?
• Patient preference
• Thinking of co-morbidities:
  • Anxiety depression
  • IBS
  • Asthma
  • Epilepsy
  • Fibromyalgia
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