Can I send this headache patient home?

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- SAH v ‘benign’ thunderclap headaches
- Other pathologies not apparent on CT
- Severe primary headaches: management

*We all make mistakes…*
Sudden/severe h’ache
1-2% of A&E attendances

- Structural pathology
  eg SAH

- Exacerbation of previous condition
  eg cluster headache

- New benign condition
  eg coital cephalgia
Thunderclap headache

30-50% serious pathology
25% SAH (1:8 if no other features)
  - 50% instant headache
  - > 1 hour duration
  - 5% diploplia
  - seizures

‘Idiopathic’
90% explosive headaches
68% instant
16% loss of consciousness

Davenport JNNP 2002
LINN JNNP1998
SAH

85% aneurysmal

15% non-aneurysmal

- smokers
- FHx

trauma
peri-mesencephalic
reversible cerebrovasoconstriction syndrome
diagnosing SAH with CT v LP

% positive for SAH

Days after symptom onset
Case 1

16.08.2017
55yr old male
10/10 sudden h’ache
brief LOC
Past Hx migraine
discharged

4.9.17 GCS 3

Aneurysmal SAH
(moral: review imaging if Hx fits)
Case 2

- 51yr old teacher
- Sudden severe headache at orgasm
- Few minutes
- Recurred 1 month later
- Similar events 20 yrs agp
- Occasional other mild headaches
- O/E pendular nystagmus
- MRI brain normal

Benign sex headache
aka ‘coital cephalgia’, ‘orgasmic cephalgia’
Case 3
50yr old woman
headaches monthly
woke with sudden severe headache 9/10, all day

2nd attack, 6/10 2 weeks later
MRI normal
MRA beading
LP normal
Repeat MRA (2 months) normal

Reversible cerebrovasoconstriction syndrome
Reversible cerebrovasoconstriction syndrome (Call-Fleming syndrome)

- 80% women, median 42 yr
- severe h’ache 1-3 hrs
- mean: 4 attacks in 1-4 weeks; lingering mild headache
- postpartum, vasoactive drugs, sex, Valsalva
- thunderclap headache, nausea, vomiting
- angio in 1st week often normal, max at 16d

- Complications:
  - convexity SAH
  - stroke, haemorrhage, arterial dissection
  - brain oedema
  - seizures
  - posterior reversible encephalopathy syndrome
Case 4

49 yr old woman
8 yr Hx unsteadiness: Chiari malformation

May 2017 sudden severe h’ache
CT normal, CTA normal
MRI flair increased signal: SAH
DSA normal

Persistent mod h’ache since, nausea, worse with straining, dizziness, 8 paracetamol/day

Non-aneurysmal SAH (RCVS?)
Case 5

Dec 2016 right hearing loss, right facial numbness
MRI SVD (hypertensive)

Long history severe headaches at orgasm, 30 mins

5.8.17 more severe headache, persisting overnight

CT: convexity SAH

CTA normal

Non-aneurysmal SAH (RCVS??)
Benign thunderclap headache

Sex headache

PRES

Reversible cerebrovasoconstriction

Aneurysmal SAH

non-aneurysmal SAH
Case 6

22 yr old woman
hx of migraine without aura
OCP
flight back from New Zealand
2 days later: worst ever ‘migraine’, vomiting

Cerebral venous sinus thrombosis
Case 7

- 73yr old, MAU
- Severe pain in right eye 2 weeks, ptosis
- URTI 1 week before, coughing
- R ptosis

Right carotid artery dissection
Case 9

70 yr old male
Sudden headache, vomiting, dizziness bitemporal field defect
Sudden collapse with hypotension and pallor

Pituitary apoplexy
Case 10

48 yr old woman
headache day after carrying backpack, within mins of standing relieved supine
CT head normal
MRI 2d later: meningeal enhancement
MRI 1m later; midbrian slump
Bed rest, fluids, Amitriptyline and diazepam
Autologous blood patch x3
Iv caffeine
CT myelogram: ? high thoracic dural leak

Eventual improvement…

Low pressure headache
(CSF hypovolaemia)
Case 12

Admitted 7.10.17
1 week severe L occipital h’ache ‘sudden’ onset, intermittent 5-10 mins
Vomiting
Previous migraine
Viral meningitis 1991
Mother & son arachnoid cysts

CT arachnoid cyst
LP protein 0.3g/l,
xanthochromasia negative

Migraine/idiopathic stabbing headache
Migraine
- unilateral
- nausea/vomiting
- photo/phonophobia
- aggravated by movt
- 4 - 72 hrs
- pulsating
- triggers

Tension-type headache
- mild / mod
- featureless
- bilateral
Acute migraine treatment:

• 900mg soluble aspirin or 600mg effervescent ibuprofen + domperidone
• Triptan +/- anti-emetic even if no nausea +/- NSAID
  • different attacks
    • different doses
    • different route

Triptans may alleviate pain of a secondary cause in migraineurs

Jurgens 2008, Rosenberg 2005
Medication overuse headache

Increased frequency of headache, increased frequency of analgesia

Withdrawal of all analgesia

Return of episodic headache

Daily headache with spikes of more severe pain

50% improve within 3/12
Further 50% improve by 6/12 with preventatives
Cluster headache
(episodic/chronic)

- unilateral
- retroorbital
- severe
- autonomic features
- agitated
Cluster treatment

- s/c Sumatriptan
- Nasal Zolmitriptan
- Short term steroids
- Oxygen 100%
- Verapamil – high dose
Brief benign headaches

- Idiopathic stabbing headache
- Trigeminal neuralgia
- Benign cough headache  
  - Exclude post fossa lesion
- Hypnic headaches
- (Paroxysmal hemicrania)
Summary....

• SAH to be excluded if worst ever h’ache within 5 mins for >1 hr (seizure/ visual disturbance)
• ‘normal’ CT scan not sufficient
• ‘headache’ is not a diagnosis