



危險的頭痛

101/6/10

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Outline

- Introduction
- Dangerous Signs
- Common Dangerous Secondary Headache
- Conclusion

Introduction

- 醫生，我頭殼裡面有沒有長東西？
- 半夜痛醒？
- 會吐？

- Patient-Dr.-Health insurance
- Blood? EEG? CT? MRI? L.P?

- Concept of **Primary** VS **Secondary** Headaches

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- Physicians are particularly fearful of missing serious causes of secondary headache disorders, such as brain tumor, SAH, meningitis, stroke
 - Missing one of this could result in severe morbidity
 - Unfortunately, the symptoms and signs of secondary headache can be sometimes subtle

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- Diagnosis of headache is mainly on history
 - Primary headache in > 90% headaches
 - Distinguish secondary from primary headache
 - “Red Flag” signs
 - = Dangerous signs
 - Secondary Headache



Dangerous Sign



SNOOP⁴



Table 1.—SNOOP⁴ Mnemonic for Secondary Headache Disorders†

Mnemonic	Clinical Presentation	Common Secondary Headache Disorders
Systemic	<ul style="list-style-type: none"> • Unexplained fever, chills, weight loss • New onset headache in patient with malignancy, immunosuppression or HIV 	Primary or metastatic tumors, meningitis, brain abscess, temporal arteritis
Neurologic	<ul style="list-style-type: none"> • Complaints of motor weakness, sensory loss, diplopia or ataxia • Abnormal neurological examination 	Malignant, inflammatory, and vascular disorders of the brain
Onset sudden	<ul style="list-style-type: none"> • Headache reaches peak intensity in <1 minute 	Vascular events such as subarachnoid hemorrhage (most common), CVA, carotid dissection, cerebral vasoconstriction syndromes, dural venous thrombosis
Onset after age 50	<ul style="list-style-type: none"> • New onset headache after age 50 	Neoplastic, inflammatory disorders, and temporal arteritis
Pattern change	<ul style="list-style-type: none"> • Progressive headache (evolution to daily headache) • Precipitated by valsalva • Postural aggravation • Papilledema 	<p>Malignant, inflammatory, and vascular disorders of the brain</p> <p>Chiari malformation, primary and metastatic lesions of brain, hydrocephalus</p> <p>Low pressure headache syndromes, cervicogenic headaches, intracranial hypertension, POTS</p> <p>Malignant and inflammatory disorders of brain, idiopathic intracranial hypertension, dural venous thrombosis</p>

†Adapted from Dodick D. *Semin Neurol.* 2010;30:74-81.

CVA = cerebrovascular accident; HIV = human immunodeficiency virus; POTS = postural orthostatic tachycardia syndrome.

Systemic

- Unexplained fever, chills, BW loss
- New onset headache in patients with malignancy, immunosuppression, or HIV
- Etiologies: tumors, CNS infection, temporal arterities

Neurologic

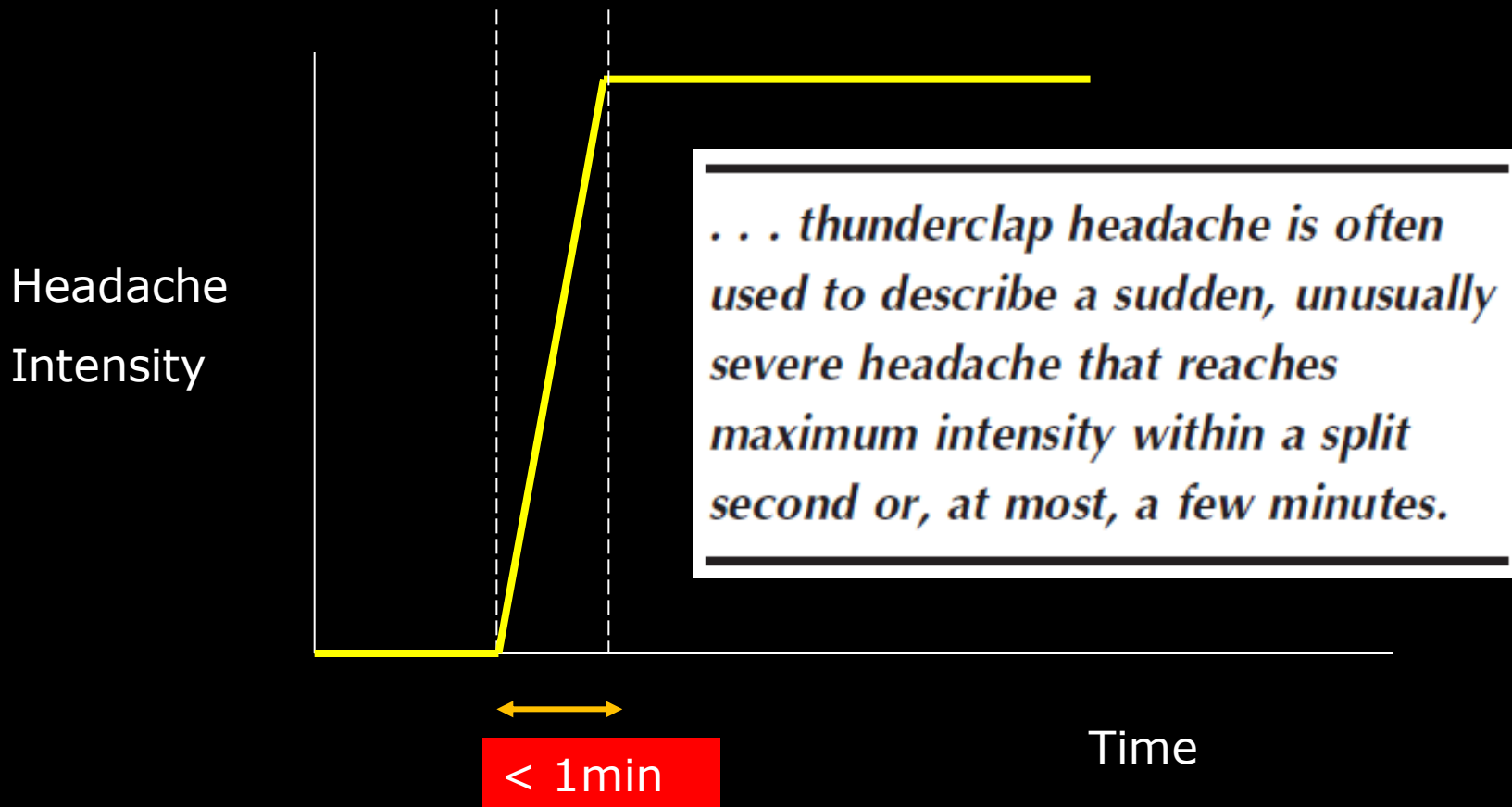
- Motor or sensory deficits
 - Diplopia, VF deficits, ataxia
 - Abnormal NE
-
- Etiologies: variable

Onset Sudden= Thunderclap Headache

- Headache reaches peak intensity in <1 minutes
- Etiology: Vascular lesions:
SAH, RCVS, Stroke, Carotid artery dissection, Venous Thrombosis



Thunderclap Headache



Onset after Age 50

- Onset Age >50 : 3.3 times more likely to have secondary causes of headache
- Age >50 : 6% secondary headaches
Age <50 : 1% (not calculate “new onset”)
- Onset Age >50 : 4% secondary headaches
Onset Age <50 : 0.25%
- Etiologies: Tumors, inflammatory disorders, temporal arterities

Patter Changes (P4)

- **Progressive headache:** tumors, inflammatory, or vascular lesions
- **Postural aggravation:** Intracranial hypotension, cervicogenic headache, POTs
- **Percipitated by Valsalva**
- **Papilledema**



- Meningeal sign
- Increased intracranial pressure (IICP) sign

Meningeal Sign

- Neck stiffness
- Brudzinski sign
- Kernig sign

IICP Sign

- Nausea/vomiting: projectile
- Postural related/ Morning headache
- Valsalva maneuver
- More acute → more severe
- Consciousness change
- NE: fundus: papilloedema
abducen n. palsy



Migraine

Common features with IICP:

- Nausea/ vomiting
- Morning headache

Different:

- Posture
- Tx response

Morning headache

Brain CT

Se:2
Im:9

[R]

Axial-5mm



SU AN JEN
Study Date:2009/6/2
Study Time:下午 12...
MRN:13695804

[L]

C35
W66

Knee MRI

Se:1
Im:1

L't Knee



SU AN JEN
Study Date:2009/7/27
Study Time:下午 01:36:48
MRN:13695804

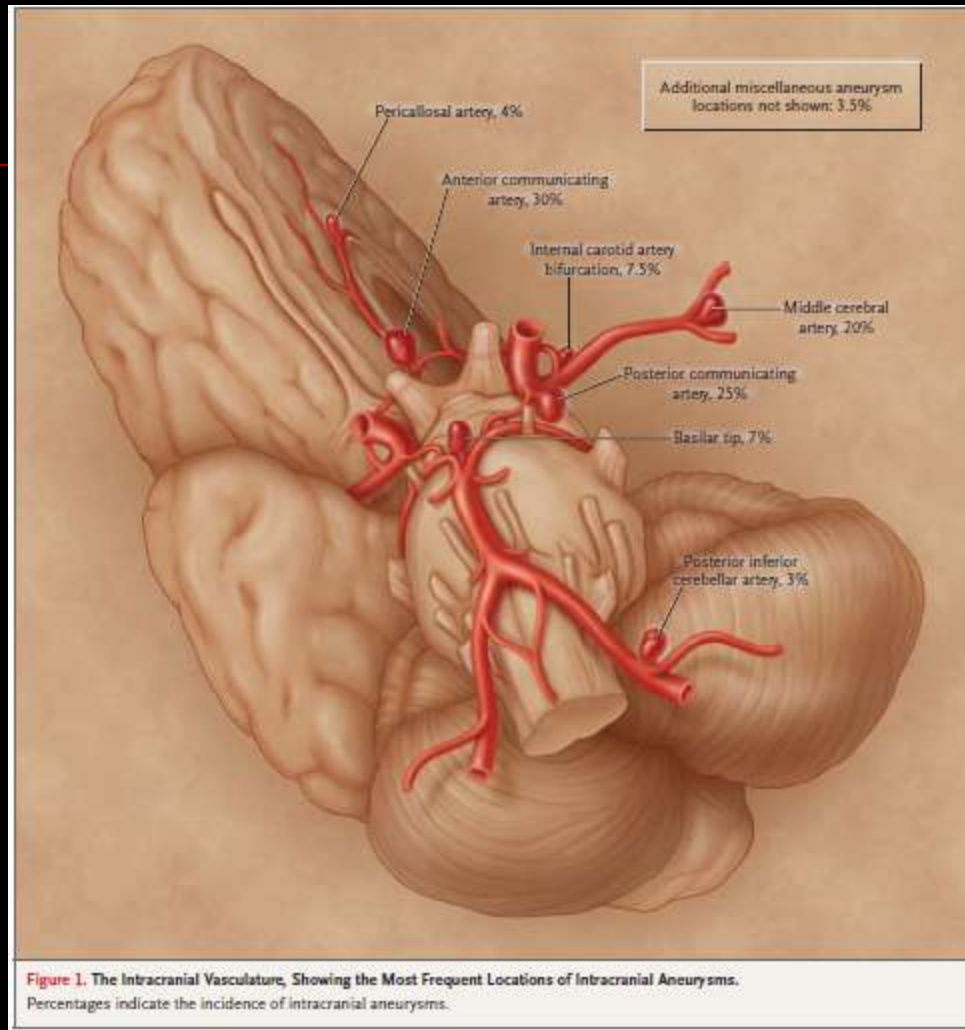
C4660
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Screen Save

Common Dangerous Secondary Headache

- SAH
- Meningitis
- Tumor
- Intracranial Hypotension

SAH



SAH

- Meningeal sign+ IICP sign
- Warning leakage
- Headache: peak at first
- Seizure
- Brain CT→ L.P→ Angiography

Meningitis

- IICP headache, fever, neck stiffness
consciousness change
- Course depends on etiology:
bacterial ,aseptic, others
- Brain CT→ L.P

MRI不是唯一的診斷工具！



Space occupied lesion

- ICP sign+ focal neurological sign
- Gradual onset with acute decompensation
- Mental function decline

Case demo- 37y/oF

S: headache and dizziness after trauma for 18
years gait deviated to left and hit to somebody
always on left side

occipital dull pain, nausea(-) photophobia(-)
phonophobia(-) unknown fever(-)

not affected ADL, stable while lying down

morning headache(-)

Frequency: qd-qod

NE

E4V4M6, EOM :full double vision(-)

VF: right heminaopsia

tinnitus(+): bil. , facial numbness(-)

dysphagia(-) dysarthria(-)

100-7=93 -7=86 -7= 79-7=7?

L-R disorientation(-) finger agnosia(-)

M.P: full FNF:OK

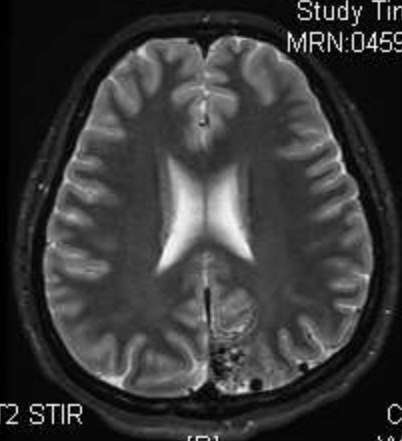
Gait:OK; tandem gait: bil. swing

Se:9
Im:17

[A]

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Axi T2 STIR

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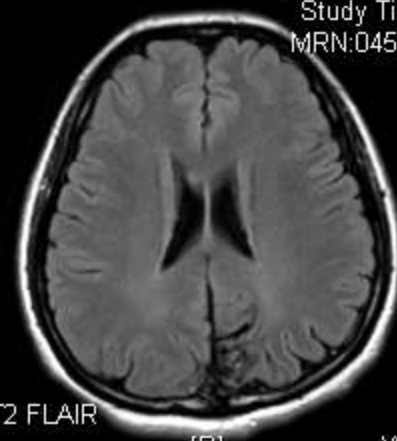
C1267
W2567

Se:8
Im:17

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Ax T2 FLAIR

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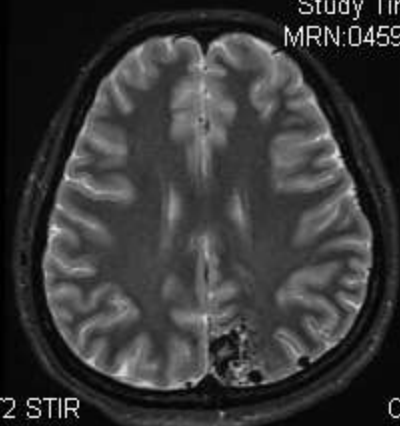
C901
W1667

Se:9
Im:18

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Axi T2 STIR

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C1267
W2567

Se:5
Im:2

[H]

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MIP I-S

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C310
W372

Conclusion

- Dangerous Sign
- Secondary Headache
- Exam: Neuroimage (CT, MRI)
L.P, Blood exam
- Carefully explained, be patient to patient