

HEADACHE

Headache is usually a benign symptom, but occasionally it is the manifestation of a serious illness such as brain tumor, subarachnoid hemorrhage, meningitis, or giant cell arteritis. Therefore, it is imperative that the serious causes of headache be diagnosed rapidly and accurately.

CAUSES OF HEADACHE

Headaches can occur as a result of

- 1) Distention, traction, or dilatation of intracranial or extra cranial arteries.
- 2) Traction or displacement of large intracranial veins or their Dural envelope.
- 3) Compression, traction, or inflammation of cranial and spinal nerves
- 4) Spasm, inflammation, or trauma to cranial and cervical muscles.
- 5) Meningeal irritation and raised intracranial pressure.
- 6) Other possible mechanism such as activation of brainstem structures.

INTERNATIONAL HEADACHE SOCIETY CLASSIFICATION OF HEADACHE:

- 1) Migraine headache
- 2) Tension-type headache
- 3) Cluster headache and chronic paroxysmal headache
- 4) Headache due to trauma
- 5) Headache associated with vascular disorders
 - Acute ischaemic cardiovascular disorder
 - Subarachnoid hemorrhage
 - Arteritis
 - Arterial hypertension

6) Head ache associated with non-vascular intracranial disorder.

- High CSF Pressure
- Low CSF Pressure
- Intracranial infection

7) Headache associated with substance or there with drawl

- Head ache induced by acute substance use or exposure.
- Head ache induced by chronic substance use or exposure.

8) Head ache associated with non-cephalic infection

- Viral infection
- Bacterial infection
- Others

9) Head ache associated with metabolic disorder

- Hypoxia
- Hypoglycemia
- Dialysis

10) Head ache or facial pain associated with disorder of facial or cranial structure

- cranial bone
- Eyes
- Ears
- Nose and Sinuses
- Teeth,jaws and related structures
- Temperomandibular joint diseases

11) cranial neuralgias, nerve trunk pain and differentiation pain

- Trigeminal neuralgia
- Glossopharyngeal neuralgia
- Occipital neuralgia
- Superior laryngeal neuralgia

12) Head ache not classifiable

HEADACHE SYMPTOMS THAT SUGGEST A SERIOUS UNDERLYING DISORDERS:

- Worst headache ever
- First severe headache
- Sub acute worsening over days or weeks
- Abnormal neurological examination
- Fever or unexplained systemic symptoms
- Vomiting precedes headache
- Induced by bending, lifting, cough
- Disturbs sleep or presents immediately upon waking
- Known systemic illness
- Onset after age 55

PATHOGENESIS

TENSION TYPE HEADACHE

- The path physiologic basis of tension-type headache remains unknown. Abnormalities of cervical and temporal muscle contraction are likely to exist, but the exact nature of the dysfunction has not yet been elucidated.
- Relaxation almost always relieves tension type headache.

MIGRAINE

Migraine the most common cause of vascular headache, afflicts approximately 15% of women and 6% of men.

Migraine is a benign and recurring syndrome of headache, nausea, vomiting or other symptoms of neuralgic dysfunction in varying admixtures.

PATHOGENESIS

GENETIC BASIS OF MIGRAINE

- Migraine has a definite genetic predisposition
- Specific mutations leading to rare causes of vascular headache have been identified.

STATUS OF MIGRAINE GENETICS

<u>Gene</u>	<u>Function of gene</u>	<u>Clinical syndrome</u>	<u>Comment</u>
tRNA	unknown	MELAS syndrome	extremely rare syndrome
CACNL1A4	P/q Ca channel Regulation neuro Transmitter release	Familial hemi- plegic migraine	mutation account for approx 50% Of FHM cases
DRD2	G-protein coupled D2 receptor for Dopamine.	migraine	+ve association Associated.

THE VASCULAR THEORY OF MIGRAINE

It was widely held for many years that the headache phase of migrainous attacks was caused by extracranial vasodilatation and that the neuralgic symptoms were produced by intracranial vasodilatation.

THE NEURONAL THEORY OF MIGRAINE

In 1941, the psychologist S. S. Kessler charted his own fortification spectrum, which is a migraine aura characterized by a slowly enlarging visual with luminous edges.

THE TRIGEMINOVASCULAR SYSTEM IN MIGRAINE

Activation of cells in the trigeminal nucleus caudalis in the medulla (a pain-processing centre for the head and the face region) results in the release of vasoactive neuropeptides, including substance P and calcitonin gene-related peptide, at vascular terminations of the nerve.

DOPAMINE IN MIGRAINE

A growing body of biologic, pharmacologic, and genetic data support a role for dopamine in the pathophysiology of certain subtypes of migraine.

THERAPEUTICS

DIFFERENT TYPES OF HEADACHE WITH ITS THERAPEUTICS

ANAEMIC HEADACHE:

Cinchona

- Debility from exhausting discharges, from loss of vital fluids, together with a nervous rethism, calls for this remedy.
- Periodicity is most marked.
- Sensation as if brain were balancing to and fro, and striking against skull, receiving great pain.
- Intense throbbing of head and carotids.
- Relieved from pressure and warm room.

Ferrum phos

- Frontal headache <by nosebleed.
- Severe, dull, heavy pain in top of head during profuse menses.
- Headache with hot, red face and vomiting of food.
- Headache of children or pale, debilitated persons.
- General soreness of scalp, can not bear to have hair touched.

CATARRHAL HEADACHE:

Allium cepa

- Catarrhal headache, oppressive over eyes and going through head like an electric shock.
- Sensation as if whole head were wrapped in hot moist compresses.
- Excessive sneezing and lachrymation.
- Profuse fluent coryza.
- Frequent cold shivers down.

Kali bichromicum

- Headache evercyebraus ,preceded by blurred vision
- Aching and fullness in glabella
- Semilateral headache in small spots and from suppressed catarrah.
- Frontal pain,usually over one eye.
- Bones and scalp feel sore.

CHRONIC HEADACHE:

Psorinum

- Is always,very hungry during headache.
- Pain is preceded by dimness of vision and spots before eyes.
- Congestion of blood to head.
- Pain as if the brain had not room enough in forehead when rising in the morning.
- >after washing and eating.

Silicea

- Headache from nervous exhaustion, severe pressing or shuttering headache.
- Paralytic weakness from defective nutrition of the nerves themselves with over susceptibility to nervous stimuli
- Chronic sick headache, since some severe disease of youth, ascending from nape of neck to vertex.
- As if coming from the spine and locating in one eye, specially the right.
- <draft of air, uncovering the head.
- >pressure, wrapping up warmly, profuse urination

CHRONIC, SCHOOL GIRLS HEADACHE:

calcareo phos

- Headache of school boys and girls, particularly after mental or bodily exertion, sometimes most severe near the sutures.
- Headache with gastric symptom, in fretful and peevish children.
- <when thinking about it, morning.
- >cold washing, mental occupation.

Natrum mur

- Anaemic headache of school children's.
- Periodically appearing frontal headaches of great severity, as if bursting and beating as from little hammers.
- Chronic headache, semi lateral, congestive, from sunrise to sunset, with pale face, nausea, vomiting, periodical, from eyestrain.

CONGESTIVE HEADACHE:

Belladonna

- Congestion of blood to head with danger of apoplexy.

- Much throbbing and heat.
- Palpitation
- Pain <light,noise,jar,lying down,afternoon.
- >pressure,tight bandage.
- Headache<right side,cold,hair cut.

GLONINE

- Cerebral congestion,or alternate congestion of head and chest.
- Terrific shock in the head,synchronous with the pulse.
- Throbbing,pulsating headache,holds head with both hands,could not lie down “pillow would beat”.
- Brain feels too large,full,bursting,blood seems to be pumped upwards,throbs at every jar,step,pulse.

GASTRIC HEADACHE:

Psorinum

- Is always very hungry during headache.
- Headache,preceded by flickering before eye,by dimness of vision or blindness,by black spots or rings.
- Headache<during hungry,>while eating(Anac.,Kali.phos.,)
- Peculiar pain in occiput,as if a piece of wood were lying on back of head,from right to left.

Nux vomica

- Congestive headache with nausea and vomiting,<coughing and stooping.
- Pain as from a nail driven into the brain or stitching pain with nausea and sour vomiting.
- Constrictive pain in the brain,headache every morning on waking,after eating,in open air.
- Appearance of a bright light before vision with lachrymation and followed by intense headache and vomiting.

HYSTERICAL HEADACHE:

Ignatia

- Neurasthenic headache.
- Intense pressing headache, often only over a small spot, going to the eyes which feels as if pressed out (Clavus hystericus) or to the root of the nose.
- At the height of the paroxysm she becomes restless and chilly, and she fiery zigzag when looking out of the line of vision.
- Finally great relief from profuse flow of colourless urine.

PLATINA

- Neuralgic headache in sensitive or hysterical persons, cramp like pressing inward.
- Hot and red face and roaring in head, pain gradually increases and decreases gradually.
- Sensation of water in forehead, numb and cold feeling in brain.
- Especially evenings <lying on left side.,> fresh air.

MIGRAINE HEADACHE:

Gelsemium

- Migraine, passive congestion in the brain, headache begins in nape of neck, passes up over the head and settles down over eyes, with stiff neck.
- Dizziness with blurred vision and heaviness of head.
- < morning, he can't fix his attention on anything, is listless and stupid.
- > copious urination or shaking head.

Sanguinaria

- The periodical sick headache, begins in morning, increases in day, last until evening, head feels as if it would burst, or as if eyes would be pressed out, relieved by sleep.
- American sick headache, > by lying in a dark room, rubbing, pressing.

- Headache begins in occiput, spreads upwards and settles over right eye (silicea) (It orbit-spig)
- Headache returns at the climacteric, every 7th day (sabad., sil., sulph)

NEURALGIC HEADACHE:

Spigelia

- Sharp neuralgic pains over left eye, coming up from the nape of neck and over the head, then settling over left eye.
- Sensation as if the head were pressed open along the vertex.
- Pulsating pain in left temple and left eye, ciliary neuralgia.
- Nervous headache, < thinking, noise, > pressing.
- Neuralgia of 5th cranial nerve is very prominent in its effect.
- Heart affections and neuralgia.

Selenium

- Nervous headache, stinging over left eye.
- < From heat of sun, strong, odours and returning periodically every afternoon.
- Profuse flow of clear, melancholic and exhaustion.
- Headache of rakes and drunkards.
- Headache < tea, lemonade.
