HEADACHES AND OTHER HEAD PAIN

Headache is a very common complaint encountered by practitioners in almost every specialty of medicine and surgery. More than 90% of the population experience headache of one type or another at least once during life.

Classifications of headache

Primary headaches

Are those in which headache and its associated features are the disorder in itself, Primary headache often results in considerable disability and a decrease in the patient's quality of life.

Secondary headaches

* Are those caused by exogenous disorders.
* Mild secondary headache, such as that seen in association with upper respiratory tract infections, is common but rarely worrisome. Life-threatening headache is relatively uncommon, but vigilance is required in order to recognize and appropriately treat patients with this category of head pain.

Mechanism

* Pain receptors are located at the base of the brain in arteries and veins and throughout meninges, extra cranial vessels, scalp, neck and facial muscles, Para nasal sinuses, eyes and teeth.
* Curiously, brain substance is almost devoid of pain receptors ..
* Head pain is mediated by mechanical (e.g. stretching of meninges) and chemical receptors (e.g. 5-hydroxytryptamine and histamine stimulation). Nerve impulses travel centrally via fifth and ninth cranial nerves and via upper cervical sensory roots accompaniment.

Pressure headaches

* HEADACHE OF RAISED INTRACRANIAL PRESSURE
* Worse in morning, improves through the day
* Associated with morning vomiting
* Worse bending forward
* Worse with cough and straining
* Relieved by analgesia
* Dull ache, often mild

A single episode of severe headache:

* Serious causes to be considered include meningitis, subarachnoid hemorrhage, epidural or subdural hematoma, glaucoma, and purulent sinusitis.
* Particular attention should be paid to suddenness of onset (suggestive of subarachnoid hemorrhage), neck stiffness and vomiting (meningeal irritation), and to the presence of a rash and/or fever (bacterial meningitis.

Factors that should increase suspicion of an intracranial tumor include:

* papilledema,
* new neurologic deficits,
* initial attack of prolonged headache occurring after the age of 45 years,
* previous malignancy, cognitive abnormality,
* and altered mental status.

Idiopathic Intracranial Hypertension (IIH):

This syndrome, also called benign intracranial hypertension, is defined as a syndrome of elevated intracranial pressure without evidence of focal lesions, hydrocephalus, or frank brain edema. It occurs usually between the ages of 15 and 45 and is more frequent in obese women. The disorder is characterized by headache. At times, patients have visual disturbances, such as restricted peripheral visual fields, enlarged blind spots, slight visual blurring, or diplopia secondary to abducents nerve palsies.

Funduscopic examination shows papilledema, which is often more impressive than the clinical picture. IIH is usually a benign and self-limited disorder, but it may lead to visual loss, including blindness. The headache is usually insidious in onset, is typically generalized, is relatively mild in severity, and is often worse in the morning or after exertion (e.g., straining or coughing

The condition has been associated with drugs-vitamin A intoxication, nalidixic acid, danazol (Danocrine), and isotretinoin (Accutane)-as well as corticosteroid withdrawal and with systemic disorders such as hypoparathyroidism and lupus.

CT is usually normal but can show small ventricles and an "empty sella" in some cases. CSF opening pressure is elevated, usually in the range of 250 to 450 mm of water, with the pressure fluctuating markedly when monitored over a prolonged period .

Treatment:

* After eliminating secondary causes of IIH, the patient should have dietary counseling for weight loss. Carbonic anhydrase inhibitors (acetazolamide) and corticosteroids have proved useful in headache control. As a second-line agent, furosemide also acts to lower CSF production. Serial lumbar punctures are understandably unpopular with patients even though transient headache relief is obtained. CSF shunting procedures (ventriculoperitoneal shunt) are occasionally necessary
* For patients with progressive visual loss, optic nerve sheath fenestration has been shown to preserve or restore vision in 80 to 90% and provide headache relief in a majority. **Intracranial hypotension (usually secondary to a CSF leak after trauma or lumbar puncture) may also cause headache, exacerbated by standing** .

'Tension' headache:

* The vast majority of chronic and recurrent headaches are believed to be produced by 'neurovascular irritation' and tension within scalp muscles. Despite universal occurrence, precise mechanisms of common headache remain obscure. Tight band sensations, pressure behind the eyes, throbbing and bursting sensations are common. What is clear is that almost all headaches with these features are benign
* There may be obvious precipitating factors such as worry, noise, concentrated visual effort or fumes. Depression is also a frequent underlying feature. Tension headaches are often attributed to cervical spondylosis, refractive errors or high blood pressure. Evidence for such associations is poor. Headaches also follow even minor head injuries. Tenderness/tension in neck and scalp muscles are the only physical signs

Management:

This involves :

* firm reassurance (imaging is often needed)
* avoiding evident causes, e.g. bright lights
* analgesic withdrawal
* physical treatments - massage, icepacks, relaxation
* antidepressants - when indicated
* drugs for recurrent headache/migraine .

Thank you,,,