Headache

Headaches are among the most frequently named symptoms in general practices.

Epidemiology

Epidemiological analysis has shown that lifetime prevalence of headaches is 93% to 99% [1]. In the primary care setting, headaches are the chief complaint in 1.5% of all visits [2].

Classification

Primary headache

Secondary headache

Headache after ischemic stroke

Postcraniotomy headache

Risk factors

The COVID-19 pandemic led to an unprecedented increase in the use of personal protective equipment (PPE) among medical personnel. The goal of this study was to determine the risk factors and frequency of PPE-induced headaches during the COVID-19 pandemic.

From January 25 to March 1, 2021, an anonymous online survey was undertaken in the Baltic states.

In total, 2132 individuals participated. 52.3% experienced a Personal protective equipment-induced headache. The usual onset time was between 2-3 h, lasting up to 1 h after PPE removal. The most common localization was in temporal and frontal regions. The headache usually occurred 2 to 3 days per week with an average pain score of 5.04 ± 1.80 points. Higher risk was associated with discomfort/pressure OR = 11.55, heat stress OR = 2.228, skin conditions OR = 1.784, long PPE use (duration 10-12 h) OR = 2,18, headache history prior PPE use OR = 1.207. Out of 52.3% of respondents with PPE-induced headaches, 45.5% developed de novo headaches, whereas 54.5% had a headache history. Statistically significant differences of PPE-induced headache between respective groups included severity (4.73 vs 5.29), duration (≥ 6 h 6.7% vs 8.2%), accompanying symptoms (nausea (19.3% vs 25.7%), photophobia (19.1% vs 25.7%), phonophobia (15.8% vs 23.5%), osmophobia (5.3% vs 12.0%)) and painkiller use (43.0% vs 61.7%).

Over half of the medical personnel reported headaches while using PPE. The risk was higher in individuals with headache history, increased duration of PPE use, and discomfort while using PPE. Predisposed individuals reported PPE-induced headache which persisted longer, and was more intense and debilitating than in the respondents with de novo headache [3].

Pathophysiology

see Headache pathophysiology

Societies

International Headache Society

Diagnosis

Guidelines suggest that neuroimaging should be ordered only if a stable headache patient displays localizing neurological symptoms or signs [4].

Types

Countless medical textbooks and journal articles provide insight into and guidance on the clinical diagnosis of headache disorders, and most primary headaches can be diagnosed through careful history and physical examination [5].

Cervicogenic headache.

Cluster headache.

Posttraumatic headache.

Differential diagnosis

Differential diagnosis of severe, acute, paroxysmal headache (25% will have SAH):

Subarachnoid hemorrhage, AKA “warning'headache” or sentinel H/A

Thunderclap headache

There is no subarachnoid blood on CT and LP, which should probably be performed on at least the first presentation to R/O SAH. Earlier recommendations to angiogram these individuals have since been tempered by experience

reversible cerebral vasoconstrictive syndrome (RCVS) (AKA benign cerebral angiopathy or vasculitis): severe H/A with paroxysmal onset ± neurologic deficit.

The most common symptom of idiopathic intracranial hypertension (IIH) is headache.

Headache after lumboperitoneal shunt placement for the patients with idiopathic normal pressure hydrocephalus (iNPH) is commonly attributed to intracranial hypotension (IH) due to shunt overdrainage [6].

People with epilepsy experience headaches irrespective of their sex or age. The burden of headaches is very important in patients with epilepsy, since headaches usually cause a moderate or severe burden to their quality of life and suggest a clear clinical need. Clinicians should recognize headache as a common comorbidity of epilepsy, as it may influence antiepileptic drug choice, and may need specific treatment [7].

Chronic subdural hematoma

Management

About 90% of the patients suffer from idiopathic headaches, for example, migraine or tension headaches, which are treated according to guidelines. An acute headache can however also be a symptom of a serious primary disease, such as subarachnoid hemorrhage, arterial dissection, cerebral infarction, cerebral venous thrombosis or acute glaucoma. Patients with suspected symptomatic headaches must be immediately referred to a specialist or hospital for further diagnosis and therapy [8].

Guidelines

Headache is one of the most common human afflictions. In most cases, headaches are benign and idiopathic, and resolve spontaneously or with minor therapeutic measures. Imaging is not required for many types of headaches. However, patients presenting with headaches in the setting of “red flags” such as head trauma, cancer, immunocompromised state, pregnancy, patients 50 years or older, related to activity or position, or with a corresponding neurological deficit, may benefit from CT, MRI, or noninvasive vascular imaging to identify a treatable cause. This publication addresses the initial imaging strategies for headaches associated with the following features: severe and sudden onset, optic disc edema, “red flags,” migraine or tension-type, trigeminal autonomic origin, and chronic headaches with and without new or progressive features. The American College of Radiology Appropriateness Criteria are evidence-based guidelines for specific clinical conditions that are reviewed annually by a multidisciplinary expert panel. The guideline development and revision include an extensive analysis of current medical literature from peer reviewed journals and the application of well-established methodologies (RAND/UCLA Appropriateness Method and Grading of Recommendations Assessment, Development, and Evaluation or GRADE) to rate the appropriateness of imaging and treatment procedures for specific clinical scenarios. In those instances where evidence is lacking or equivocal, expert opinion may supplement the available evidence to recommend imaging or treatment [9].

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