Tension-Type Headache, Acute

Description:

- Headache disorders are prevalent worldwide.
- Headache disorders can be broken down into primary and secondary types:
    - **Primary headache disorder**: No other condition is causing the headache.
        - Primary headache disorders can be broken down by clinical features and diagnosis as tension-type headache, migraine, trigeminal autonomic cephalalgias (e.g., cluster headache), and other primary headache disorders (e.g., exercise [exertional] headache).
        - More than 90% of all primary headaches are tension-type headaches (TTH), migraine, and cluster headache.
        - More than 90% of patients who present to their **primary care** practitioner for evaluation of headaches have a primary headache disorder.
        - **Tension-type headache (TTH)**
            - Most common primary headache disorder.
            - Common in children and adolescents.
            - Occur in up to 80% of people at least once in their lifetime.
            - More prevalent in women than men.
            - Decline with increasing age.
            - May be triggered by mental stress or tension.
            - May be episodic or chronic (headache on ≥ 15 days per month for > 3 months).
        - **Migraine**
            - Second most common primary headache disorder.
            - Common in children and adolescents.
                - Migraines are more common in male patients prior to puberty and are more common in female patients after puberty.
            - For adults, women are 2 to 3 times more likely to have migraine than men.
                - Peaks in midlife.
            - Genetic component: Inherited in most instances.
        - **Trigeminal autonomic cephalgias**
            - Cluster headache is the most common subtype.
            - Low prevalence of cluster headache in the general population.
    - **Secondary headache disorder**: Headache can be attributed to another underlying condition.

        - Examples include trauma, stroke, temporomandibular disorders, head injury, medication withdrawal syndrome, medication overuse headache, insomnia, or psychiatric disorders.

Clinical History:

It is important to differentiate between types of primary headache disorders through a detailed history. Review Description, Signs and Symptoms, and Differential Assessment sections for more details.

Initial assessment should include a complete history:

- **History of similar headache**
    - Previous similar tension-type headache (TTH) symptoms and headache pattern
- **Description of current headache**
    - Frequency
    - Intensity
    - Duration
    - Onset (e.g., sudden, or gradual, or related to a specific activity)
    - Location (e.g., unilateral, bilateral, frontal, orbital, etc.)
    - Additional signs and symptoms associated with the headache such as:
        - nausea and/or vomiting
        - nasal symptoms such as sensitivity to smells, runny nose, congestion
        - ocular symptoms
        - light or sound sensitivity
    - Characteristics of the pain
        - Throbbing or pulsating
        - Pressing or tightening
    - Severity
        - Effect of the headache on activity
        - Patients and practitioners may utilize tests such as the **Headache Impact Test (HIT)** to assess the severity.
        - Use of a pain scale
            - Numeric Rating Scale (NRS) is simple and easy to use. Verbally asking the patient on a scale of 0 to 10 (where "0" is no pain and "10" is the worst pain); 1-3= mild, 4-6= moderate, 7-9= severe.
            - Pain scales are subjective. Use them as a tool for the patient to monitor themselves over time for a change in characteristic of headaches.
- **Differentiate between episodic and chronic headaches**
    - Episodic: < 15 headache days per month for at least 3 months.
    - Chronic: ≥ 15 headache days per month for at least 3 months. Requires further assessment by primary care provider.
- **Precipitating and relieving factors.**
    - **Examples**:
        - Specific foods or drinks e.g., caffeine, alcohol, chocolate
        - Hydration

        - Smells
        - Activity
        - Stress
        - Sleep
        - Movement of head or neck
- **Previous treatment** (nonpharmacologic and pharmacologic)
    - Response to previous treatment
    - Acute or chronic
    - Dose, duration, and frequency of use

Signs and Symptoms:

Tension-type Headache (TTH)

- Lasts from 30 minutes up to 7 days
- Worse at end of day
- At least two of the following:
    - Mild to moderate intensity
    - Pressing/tightening feeling (non-pulsating pain)
    - Not aggravated by regular physical activity or exertion
    - Bilateral symptoms

      AND
    - No nausea or vomiting
    - May have either photophobia or phonophobia, but not both

Differential Assessment:

Tension-type headaches are assessed and diagnosed based on history and on the presence of typical signs and symptoms. Rule out the following conditions and secondary causes of headache that may present with similar signs and symptoms:

- **Migraine headache**
    - Symptoms last 4 to 72 hours.
    - Migraine headaches can present with an **aura** (1/3 of patients) or without an aura.
        1. Auras include fully reversible neurological symptoms
            - Examples include visual symptoms (most common), sensory symptoms (e.g., numbness, tingling, pins and needles), or speech disturbances (e.g., difficulty speaking)
    - Migraines have a potential of four stages: **prodrome** (e.g., depression or mood changes, irritability, fatigue, yawning, neck pain or stiffness, light or sound sensitivity), **aura**, headache, and **postdrome** (e.g., exhaustion, depression, and in some cases elated mood).

    - At least one of the following must be present:
        1. **Nausea and/or vomiting** OR
        2. **BOTH** photophobia (sensitivity to light) and phonophobia (sensitivity to sound)
    - **Moderate to severe** intensity of **throbbing/pulsating feeling** that is aggravated or intensified by movement, physical activity, or exertion.
    - Typically, unilateral in adults and can be bilateral in children and adolescents.
- **Cluster headache**
    - Uncommon primary headache disorder, **occurring in up to 0.3% of people.**
    - Risk factors include family history and tobacco use.
    - Headaches **occur frequently**, varying from one episode every other day up to 8 episodes per day.
    - The headache **episode lasts from 15 minutes to three hours**. Many patients will experience “clusters” of these headache episodes over the span of one week, up to one year, known as the “cluster period”.
    - Patients often then go into remission for months or years.
    - Cluster headaches present with rapid onset, severe unilateral, orbital, supraorbital, or temporal pain. In addition, the patient will present with at least **one** of the following:
        1. Conjunctival injection (blood shot eyes)
        2. Lacrimation (tearing of the eyes)
        3. Nasal congestion or rhinorrhea (stuffy or runny nose)
        4. Swelling of the eyelid
        5. Forehead or facial sweating
        6. Miosis (small pupil) or ptosis (droopy eyelid)
        7. General restlessness or agitation
- **Medication overuse headache (MOH)**
    - Occurs with frequent use of any symptomatic treatment for headaches in patients with pre-existing headache disorders, although most commonly occurs with acute treatment of episodic migraine or tension-type headaches.
    - Symptoms typically resemble tension-type headaches or migraines.
    - Patients with migraines seem to be more likely to develop MOH.
    - Typically occurs after using the following drugs for **3 months or more:**
        1. Triptans, opioids, or ergots, alone or in combination for ≥ **10 days per month**
        2. Acetaminophen, ASA, or NSAIDs, alone or in combination for ≥ **15 days per month**
        3. Combination of medications from both 1. and 2. For ≥ **10 days per month**
    - Suspect MOH if headaches occur on more than 15 days per month and are worsened or not improved by pain medications.
    - Typically resolves within a couple weeks (up to 2 months) after withdrawing offending pain medication; however, original headache disorder likely to return.
- **Post-traumatic headache**
    - Headache that occurs due to trauma to the head or neck.
- **Bacterial or viral intracranial infections**
    - Encephalitis or meningitis often present with headache in addition to fever, neck stiffness, impaired consciousness, or photophobia.
- **Stroke or transient ischemic attack (TIA)**

    - Evident by the simultaneous onset of neurological impairment of speech, sensation, strength, or consciousness.
- **Medication-induced headache (adverse effect)**
    - Some medications are known to potentially cause headaches as an adverse effect.
    - Some examples include tetracycline, nitrates, nifedipine, hydralazine, hormonal contraception, menopause replacement therapy, atropine, digitalis, PDE5 inhibitors (e.g., sildenafil), anabolic steroids, amiodarone, lithium, and dipyridamole.
- **Substance-induced headache**
    - Some headaches can be attributed to a substance or its withdrawal.
    - Some examples include carbon monoxide, alcohol, cocaine, and histamine.
- **Medication withdrawal headache**
    - Some medications are known to cause headaches as a withdrawal symptom, especially upon abrupt discontinuation of the medication.
    - Some examples include opioids, caffeine, benzodiazepines, corticosteroids, SSRIs, and estrogen.
- **Shingles and post-herpetic neuralgia**
    - Head and facial pain near the area of herpetic eruption.
- **Other bacterial or viral infections**
    - Examples include sinusitis, otitis media, or dental abscesses.
    - Suspect if headache is also associated with pain localized to structures in the head and neck (e.g., eyes, cheeks, forehead, ears, sinuses, teeth, or neck).
- **Temporomandibular joint disorder (TMJ)**
    - Presence of headache or facial pain in conjunction with either jaw pain, muscle discomfort when chewing, jaw clicking or locking, or inability to chew properly.

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