

CHAPTER 2: ADVANCED HEALTH ASSESSMENT OF THE HEAD, NECK, AND LYMPHATIC SYSTEM

1. The clinician is assessing the skull of an adolescent. The clinician notes the skull bones are separated by the following sutures: (Select all that apply.)
 - *a. Squamosal
 - *b. Sagittal
 - c. Sphenoid
 - *d. Coronal
 - *e. Lambdoid

Rationale: The skull bones are separated by lambdoid, sagittal, coronal, sagittal, and squamosal sutures. The sutures connect the occipital, parietal, frontal, and temporal bones. The sagittal suture attaches the two parietal bones to each other. The frontal bone is attached to the parietal bones by the coronal suture. The sphenoid is a bone in the skull that makes up part of the base of the skull.

2. A 63-year-old male presents to the office complaining of increasing dry mouth that began approximately 1 month ago. Which of the following should the clinician assess to identify a possible cause for the dry mouth?
 - *a. Submandibular gland
 - b. Sternocleidomastoid muscle
 - c. Cervico-trigeminal reflexes
 - d. Mylohyoid

Rationale: The submandibular gland is essential for the production of salivary fluid. Saliva is necessary for the breakdown and digestion of food. Additionally, the gland helps to facilitate lymphatic drainage. The sternocleidomastoid muscle (SCM) plays a fundamental role in the posture of the body. The cervico-trigeminal reflexes assist with the electrical activity of the SCM. However, the cervico-trigeminal reflexes do not assist with the development of salivary fluid. Although located behind the submandibular gland, the mylohyoid does not produce salivary fluid or contribute to the production of salivary fluid.

3. Which areas should the clinician expect to assess for lymph nodes in a patient's leg? Select all that apply.
 - a. Axillary
 - *b. Inguinal
 - c. Submental
 - d. Occipital
 - *e. Popliteal

Rationale: Lymph nodes of the leg include the inguinal and popliteal nodes. Axillary nodes are located in the arms. The submental and occipital nodes are located in the neck region.

4. A patient complains of a migraine headache that is precipitated by her menstrual cycle. The symptoms include generalized location lasting hours to days with noted throbbing. Which test would be prudent for the clinician to order?
 - a. x-Ray
 - *b. MRI
 - c. Ultrasound
 - d. Thyroid function tests

Rationale: For a diagnosis of migraine headache, cluster headache, tension headache, or sinusitis, an MRI or CT scan should be ordered. An ultrasound or thyroid function test is ordered for those patients with a thyroid nodule, thyroid cancer, goiter, or Hashimoto's disease.

5. The clinician is assessing a patient who presents with complaints of a headache. If the clinician is assessing for headaches, which question should be asked to the patient? Select all that apply.
- *a. "Do you experience rebound pain if you don't consume caffeine?"
 - *b. "Do you take oral contraceptives?"
 - *c. "Do you experience any photophobia?"
 - d. "Do you experience any decreased lacrimation?"
 - *e. "Do you notice the headaches occurring with your menstrual cycle?"

Rationale: The history should include questions about the pain, especially if rebound pain occurs if caffeine is not consumed. Oral contraceptives can be a precipitating factor in headaches. Photophobia can occur with headaches. A patient's menstrual cycle can also be a precipitating factor to the headaches. Lacrimation can occur, but a patient would experience an increase in lacrimation, not a decrease.

6. A clinician is examining a 42-year-old male patient with a headache. The patient reports the following symptoms: a constriction-type pain occurring unilaterally, lasting hours to days, but that always begins with stress and in the evening. Which differential diagnosis would be consistent with these characteristics reported?
- a. Migraine headache
 - *b. Muscular tension headache
 - c. Cluster headache
 - d. Temporal arteritis headache

Rationale: Muscular tension headaches occur in adulthood, with either a unilateral or bilateral location, lasting hours to days, with an onset anytime, but commonly begin in the afternoon or evening, and have a band-like or constricting quality, and is often precipitated by stress. Migraine headaches can occur morning or night. Although cluster headaches occur at night, the duration is typically 0.5 to 2 hours. Temporal arteritis headaches can occur anytime.

7. A clinician is examining a 36-year-old female patient with a headache. The patient reports the following symptoms: a throbbing pain in the occipital region, lasting hours, that remits as the day progresses, that does not have any precipitating factors. Which differential diagnosis would be consistent with these characteristics reported?
- a. Temporal arteritis headache
 - b. Cluster headache
 - *c. Hypertensive headache
 - d. Migraine headache

Rationale: Hypertensive headaches occur equally in men and women, with either a bilateral or an occipital location, lasting hours, and generally remits as the day progresses, and has no prodromal or precipitating events. Migraine headaches have precipitating factors including missing meals, menstrual periods, and taking birth control pills. Temporal arteritis headaches last hours to days. Cluster headaches occur at night precipitated by alcohol consumption.

8. A clinician is examining a female patient with a headache. The patient reports the following symptoms: throbbing pain that is diffuse, lasting hours to days, with an increase in frequency to daily. The patient reports stopping her daily coffee. Which differential diagnosis would be consistent with these characteristics reported?
- Hypertensive headache
 - Temporal arteritis headache
 - Cluster headache
 - *d. Medication-rebound headache

Rationale: Medication-rebound headaches present with dull or throbbing pain that is generalized or diffuse, it lasts hours to days, and is brought on by the abrupt discontinuation of analgesics or caffeine. These headaches present in females more and have a prodromal event of daily analgesic use or daily caffeine use. Hypertensive and temporal arteritis headaches are not brought on by any prodromal or precipitating events. Cluster headaches occur at night precipitated by alcohol consumption.

9. What changes should a clinician expect to see in the head and neck region of the geriatric population?
- An increase in the size of the lymph nodes
 - An increase in the number of lymph nodes
 - A decrease in scalp dryness
 - *d. A decrease in the number of teeth

Rationale: In the geriatric population, the teeth in the mouth may decrease in number, leading to a sunken appearance of the patient's mouth. The lymph nodes decrease with age in size and number. The skin dries out with age, which may lead to more flaking of the scalp upon inspection.

10. A clinician is assessing a patient who presented with a stiff neck. Which of the following assessments should the clinician make? Select all that apply.
- *a. Assess for pain with movement
 - *b. Assess for continuous pain
 - *c. Assess for any recent trauma
 - d. Assess for hypothermia
 - *e. Assess work position

Rationale: When assessing a patient with a stiff neck, the history should include neck injury or strain, traumatic brain injury, neck swelling, fever, associated headache, other symptoms of meningitis (confusion, drowsiness/lethargy, photophobia, cranial nerve deficits, and seizures). Characteristics of the stiffness include limitation of movement; pain with movement; pain relieved by movement; continuous or cramping pain; radiation pattern to arms, shoulders, hands, or down the back. Predisposing factors include unilateral vision or hearing loss and work position (e.g., long hours in front of a computer). Efforts to treat include heat, physical therapy, complementary medicine, medications, analgesics, and muscle relaxants. Neck kyphosis may develop secondary to trauma. Hypothermia is not a predisposing factor of a stiff neck.

11. Which assessment finding by the clinician suggests malignancy in a patient with lymphadenopathy?
- Soft nodes
 - Mobile nodes
 - Small nodes
 - *d. Fixed nodes

Rationale: Hard or fixed nodes (fixed to underlying structures and not moveable on palpation) suggest malignancy. Tender nodes suggest inflammation.

12. Which lymph node can be found along the anterior edge of the trapezius?
- a. Superficial cervical
 - *b. Posterior cervical
 - c. Submental
 - d. Occipital

Rationale: The posterior cervical node can be felt along the anterior edge of the trapezius. The superficial cervical node is superficial to the sternocleidomastoid. The submental node is midline a few centimeters behind the tip of the mandible. The occipital node is at the base of the skull posteriorly.

13. Briefly describe the functions of the skull.

Answer: The skull serves as a protector of the brain. The nerves and vessels that control the brain, face, and scalp are protected by the skull. In addition, the muscles and tendons of the face and scalp adhere at the site of the skull. Each bone in the skull serves a structural and protective role. Together the bones form the human face.

Rationale: The skull plays a critical role in the protection of the brain. In addition to providing protection, the skull also provides an attachment site for muscles and tendons of the scalp and face. The skull is made up of a total of 44 bones including eight cranial bones and 14 facial bones. Each bone plays a critical role with providing protection. The facial and cranial bones shape the head, contributing to human appearances of the face.

14. List the 10 lymph nodes located in the neck region. List the nodes in correct sequential order used during examinations.

Answer:

- a. Preauricular
- b. Posterior auricular
- c. Occipital
- d. Tonsillar
- e. Submandibular
- f. Submental
- g. Superficial cervical
- h. Posterior cervical
- i. Deep cervical chain
- j. Supraclavicular

Rationale: Examining lymph nodes in sequential order is critical for an accurate assessment of the lymph nodes.

15. A patient presents to the primary care office for an annual checkup. During the assessment, the provider palpates the thyroid gland and notes the thyroid gland is enlarged. What would the provider do next?

Answer: Auscultate for bruits.

Rationale: The presence of thyroid bruits is often indicative of Graves' disease and other thyroid diseases.

16. Discuss the components to include when taking a history on a patient who presents with headaches.

Answer:

- a. Onset of headache
- b. Location of headache
- c. Character of headache
- d. Severity of headache
- e. Visual prodrome
- f. Pattern
- g. Change in the level of consciousness (LOC)
- h. Precipitating factors
- i. Efforts to treat
- j. Medications

Rationale: The history should include the abovementioned elements. Knowing this information will assist the provider in the diagnosis and treatment of headaches.

17. A patient presents to the office with complaints of neck pain secondary to a traumatic head injury following a motor vehicle accident (MVA). What should be the clinician's first consideration?

Answer: Safe patient handling should be the clinician's first consideration.

Rationale: Safety in caring for patients with head, neck, and lymph node disorders should be considered at all exams. When seeing patients with traumatic head and neck complaints, safe handling of the patient should be the provider's first consideration. Physical examination of patients with such complaints should be done carefully so as not to worsen any trauma that may already exist.

18. The clinician is assessing a transgender patient in the office. What type of environment should the clinician attempt to create for this patient?

Answer: An inclusive environment.

Rationale: Create an inclusive environment when providing care for your transgender patient. Screen transgender patients for cancer as you would all other patients as this group has a higher rate of cancer than the general population. In addition, screen for sexually transmitted diseases as this population also has a higher rate than the general population. Lesions on the outside of the mouth should not be dismissed. Consider Herpes and other causes such as viral Zoster, other sexually transmitted diseases, or hand, foot, and mouth disease.

19. Name four specific considerations/areas in the pediatric population with regard to their head, neck, and lymphatic system.

Answer: Fontanel, sinuses, tonsils, and lymph nodes.

Rationale: Fontanel "soft spots" are present to allow for the growth of the head. The head is molded during the vaginal delivery of a baby but should reshape within days of delivery. Sinuses do not develop until 7 years of age. Tonsils are larger in childhood than in adolescence, and lymph nodes are larger in children than adults.

20. Briefly discuss the history components in a patient with a traumatic brain injury.

Answer: State of consciousness; duration of unconsciousness; combative, confused, alert, or dazed behavior; any predisposing factors; and all associated symptoms.

Rationale: In a patient with a traumatic brain injury, the history should include an independent observer's description of the event; the patient's state of consciousness after injury: immediately and 5 minutes later; duration of unconsciousness; and combative, confused, alert, or dazed behavior. In addition, the history should include any predisposing factors: seizure disorder, hypoglycemia, poor vision, light-headedness, syncope, and/or sports participation. Finally, the provider should review all associated symptoms: head or neck pain, laceration, local tenderness, change in breathing pattern, blurred or double vision, discharge from the nose or ears, nausea or vomiting, urinary or fecal incontinence, and the ability to move all extremities.