SMALL GROUP SESSION 17
January 10th or 12th

HEENT exam and Ophthalmoscopy Workshop

Readings for this week:
Complete the HEENT exam module on the POM-1 web-site.

Review HNE and ENT OSCE


Prepare by:
• Charging your otoscope handle.

Bring: Charged otoscope, tuning forks, and any other examination equipment you might need to practice physical exam skills.

Mentors: Bring tongue blades, gloves, and hand washing supplies.

Session Overview
Section 1. Opening
Section 2. Ophthalmoscopy workshop
Section 3. HEENT examination workshop
Section 1. Opening (15 minutes):

Section 2: Ophthalmoscopy workshop: (75 minutes)

Goals:
- To learn to use the different lenses of your ophthalmoscope
- To learn to focus on the anterior structures of the eye
- To learn how to look for the fundus and optic disc

Objectives:
- to understand the use and properties of the short and long focal length lenses
- to use the short focal length lenses to look at the anterior chamber of the eye
- to position yourself correctly to see the optic disc (and, we hope, see the disc)

EXERCISE 1: Using the Ophthalmoscope Lenses (20 minutes)

The ophthalmoscope has two colors of lenses: the green or black lenses (used to look at anterior chamber structures - those in front of the lens) and the red lenses (used to look at the retina, which is behind the lens). Get to know it first.

1. The skin exercise: use of short focal length lenses (10 minutes)
   The green or black-numbered lenses look at things up close – at 1 to 5 inches or so from your eye. They are usually numbered up to 40; the closer up you look, the higher the number.

   Hold your hand 3 inches from the scope and look with a green lens at your hand. Find the number that gives you the sharpest image. Then, move your hand 1 ½ inches from the scope and dial the lens to focus again. What number lens is best now?

2. The wall exercise: use of long focal length lenses (10 minutes)
   The red lenses require an intact patient lens to focus on the retina. The correct number for you is a function of your own lens’s refractive power - and the patient’s.

   This exercise lets you find the correct number for each of your eyes. The lens of this number is the one you will use first to look for a patient’s retina. In patients with refractive errors, you may need to move one or a few lenses away from this to focus best - but always start with your unique number, which you can find with this exercise.

   Look at a distant object on the wall and dial the lens that gives you the sharpest number. Make a mental note of this number. Now, do the same with your other eye. This is your unique number for viewing the retina.
EXERCISE 2: POSITIONING FOR EYE EXAMINATION (5 minutes)

In the ideal position, the examiner is 1 ½ to 2 inches from the patient’s cornea. To do this, and to stabilize your relationship to the patient, you will need to hold the scope in the same hand as the eye you are examining and to “find” the patient with your other hand.

So: to look in the patient’s right eye, hold the scope in your right hand and look through it with your right eye. Put your left hand on the patient’s head with your thumb just above the eyebrow. For the left eye, reverse everything.

Get as close to your patient as you can without bumping into his or her eyelashes or eyebrows. The closer you are to the patient, the wider your visual field.

EXERCISE 3: LANDING ON THE DISC (50 minutes)

For this exercise, keep the room as dark as you can - only enough light so that the patient can see something to focus on.

Dial your unique red lens for your dominant eye.

Have the patient look straight ahead at a fixed object behind you. Approach the eye from 20 to 30 degrees to the side of the patient in the sagittal plane, with the ophthalmoscope at a low level of light intensity. Move in to the ideal viewing distance. Make sure your patient can keep looking straight ahead.

The disc is a light-colored circular area with blood vessels converging into it. Try to see it. If you find a blood vessel, try to follow it to the disc. If you are in the correct position, the disc should be nearby.
Section 3. HEENT examination workshop (75 minutes)

Objectives: to learn the technique of examining head, eyes, ears, nose, throat and neck

Logistics:
● Mentor demonstrates HEENT exam. Group can decide if they want to do one at a time, or demonstrate both in sequence.

● Practice today the techniques on the HNE and ENT OSCEs. While you are there, look for some landmarks. Your examination may include:

  • Inspection of head and scalp for symmetry, facial weakness, deformities, scars, hair distribution, etc.
  • Inspection of ears
    o Pinnae and external auditory canals
    o Otoscope technique
    o Viewing the tympanic membrane
    o Tests of hearing (finger rub or whisper, Weber and Rinne)
  • Inspection of nose: patency and turbinates
  • Inspection of mouth and throat:
    o Mucosal color and moistness
    o Normal variants
    o Teeth and gums
    o Tongue (include Vallate papillae)
    o Salivary duct openings
    o Uvula
    o Soft and hard palate
    o Tonsils
  • Palpation: for
    o Sinus tenderness
    o Temporal arteries
    o Parotid and submandibular salivary glands

Examination of the neck:
  • Inspection: for symmetry, masses
  • Palpation: of
    o Trachea
    o Cricoid cartilage
    o Hyoid bone
    o Carotid pulses
    o Thyroid gland
  • Lymph node palpation:
    o Preauricular
    o Postauricular
    o Tonsillar
    o Submandibular
    o Submental
    o Anterior cervical
    o Occipital
    o Posterior cervical
    o Supraclavicular
### Physical Examination
#### Objective Structured Clinical Examination (OSCE)

**Head, Neck and Eyes Examination Checklist**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>A = Attempted Satisfactory</th>
<th>B = Attempted Below Satisfactory</th>
<th>C = Did Not Attempt</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EYE INSPECTION:</td>
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<td>2. EXTRAOCULAR MOVEMENT:</td>
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<td>3. PUPIL RESPONSE:</td>
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<td>4. OPHTHALMOSCOPY:</td>
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<td>5-13. LYMPH NODES:</td>
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<td>5. preauricular – in front of ears</td>
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<td>6. postauricular – behind the ears</td>
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<td>7. occipital – base of the back of the neck</td>
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<td>8. posterior cervical – back of the sternomastoid muscle</td>
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<td>9. cervical/tonsillar – angle of jaw</td>
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<td>10. submandibular – halfway between angle of jaw and chin</td>
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<td>11. submental – midline under chin</td>
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<td>12. cervical chain – along sternomastoid muscle</td>
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<tr>
<td>13. supraclavicular – in angle formed by collarbone and sternomastoid muscle</td>
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<td>14. TRACHEA:</td>
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<td>15. THYROID:</td>
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## Physical Examination

### Objective Structured Clinical Examination (OSCE)

#### Ears, Nose and Throat Examination Checklist

<table>
<thead>
<tr>
<th>Procedure</th>
<th>A = Attempted Satisfactory</th>
<th>B = Attempted Below Satisfactory</th>
<th>C = Did Not Attempt</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. OTOSCOPY: Ex gently pulls the auricle up and back. While holding the otoscope the Ex slowly inserts the speculum with a downward and forward movement into the ear canal. Repeats with opposite ear.</td>
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<tr>
<td>2. HEARING ACUITY: Ex asks Pt to block one ear with finger while Ex checks the auditory acuity in the opposite ear. Ex then rubs fingers together 3 ft. from the unobstructed ear and then moves fingers in until Pt can hear the rubbing. <strong>AND / OR</strong> The Ex whispers a word or number while standing approximately 3 feet from Pt’s side and asks him/her to repeat word.</td>
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<td>3. WEBER TEST: The Ex sets the tuning fork in vibration and places the base of the fork on the midline of the Pt’s head. Ex asks Pt whether the sound is heard equally in both ears or better in one ear.</td>
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<tr>
<td>4. RINNE TEST: The Ex sets the tuning fork in vibration and places the base against Pt’s mastoid bone. Ex asks Pt to specify when the sound is no longer heard. The Ex then places tuning fork in front of Pt’s ear while Ex asks Pt if he can now hear the sound from tuning fork. Repeats with opposite ear.</td>
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<td>5. PATENCY: Ex asks Pt to inhale through each nostril separately while the opposite nostril is held shut.</td>
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<td>6. SPECULUM: Ex is positioned in front of Pt while gently inserting the short wide-tipped speculum into Pt’s nostril. Ex examines the lower portions of the nose and then asks Pt to tilt head slightly backwards.</td>
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<td>7-9. INSPECTION:</td>
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<tr>
<td>7. Ex uses a light to inspect the buccal mucosa and the BACK of the mouth and throat. Using a tongue depressor Ex depresses more than halfway back on the tongue. Ex may have Pt phonate while inspecting the throat.</td>
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<tr>
<td>8. Ex asks Pt to bite down. Ex inspects the TEETH and GUMS at the same time using a tongue depressor or gloved finger to move the lips out of the way.</td>
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<tr>
<td>9. Ex asks Pt to extend TONGUE and move it from side to side. Ex uses a cotton gauze or gloved finger when touching tongue. (May inspect tongue at the same time Ex is inspecting the floor of mouth). Ex is not required to palpate the tongue.</td>
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