Nose, and Oropharynx Exam

Richard LeBlond, MD Next I'm going to examine **the nose** and the appendages of the nose including the sinuses. And also remember of course that the station to connect from the middle ear to the back of the nasopharynx and is connected to the posterior nasal structures. So only examine the nose first thing we want to do is come to the front and inspect once again for cemetery. Nasal injury are very common in both childhood and adulthood. You talked back you can look at the nasal septum, nasal inhaler and make sure that they're all symmetrical. Come back down another good way to check for symmetry is to take a tongue blade and run it from the middle of the glabella here, between the eyes down to the middle of the columella and the upper lip. And it should bisect the face that's a good way to detect facial asymmetry, actually facial asymmetry is not uncommon.

Next we're going to palpate the structures around the nose. Remember the frontal sinuses sit here but in the frontal bone above the eyes they can be quite different in size. That's not at all rare to have an a plastic or underdeveloped frontal sinus with a very dominant frontal sinus on the other side. Maxillary sinuses are here in the maxilla and communicate to the nose through the complex that sits right up here at the top and the area of the ethmoid sinuses which between the eyes. The sphenoid sinus is posterior, really in the middle of the head. It's important to recognize the pain arising in the sphenoid sinuses oftentimes referred to the vertex. So patients who come and complaining of pain right in the vertex you should think about sphenoid sinus problems.

We should palpate these areas, gentle pressure over the frontal bone. Also gentle percussion on he front of mound may detect tenderness. Look for any erythema, obviously, any swelling same over the maxilla. Look for erythema, any swelling. Gentle pressure on the maxilla. Any pain there... OK. And then gentle percussion... OK. Any pain when I do that? Great. Lastly we can do transillumination of the sinuses. The fiber-optic otoscopes are really quite good for this because the cold and I don't apply heat to the patient to transilluminate the frontal sinuses. Replace the otoscope against the frontal bone, just at the supraorbital ridge and you're going to inspect for light appearing in this area and same on this side. Remember asymmetry's very common to transilluminate the maxillary sinuses.

You have the patient extend his head, open the mouth and we're going to place the light against the maxilla at this position and we're going to look for light appearing on the hard palate inside of the mouth. If there's good transmission there that will appear pink and light same thing on the other side. Open your mouth and will look in... OK. And transillumination of these sinuses look like this. Part of the examination of the nasal septum is to try and get an idea of whether there's any extra tissue thickening hematoma of the nasal septum or any perforation of the nasal septum. A good way to do that in addition to just straight inspection is transillumination of the septum. This involves shining light in one side of the nose and I'll shine light on the left side of the nose. In this case I'm looking for the light being transmitted through the nasal septum. You should see a nice bright red glow. You feel like comes through is bright and white like it's coming out of the the light source. Then that suggests that there is in fact a perforation.

If you don't see a bright red transmission then it suggests there's sickening perhaps hematoma following trauma or some other process. That's infiltration of the nasal septum and obscuring the light passage. So we'll just shine a light in left side. And let's me pick up a nice red glow on the

right side. Sometimes best to take the nasal speculum off and get a nice transmission of light into the right side of the nose. It's easier to see this when you do it yourself as opposed to in the photography. Here's a very useful technique. Let's try it once again... again widen the left side and you're examining the right side and nice transmission of light through the right side of the nose. So that strands elimination of the nasal septum and so useful technique, particularly after trauma. People who are strikes square on the face may come in with a lot of pain. You may not see much of the large hematoma. The nasal septum is very important to identify because it needs to be evacuated immediately or you may end up with permanent damage and perforation of the septum.

OK next we're going to examine inside the nasal passageways. So we're going to look to head back and look at. Remember the nasal septum is very tender, the anterior part of the nose, that inside of the nasal air layer is called the best of you. It's covered by squamous epithelium with her. And scenario where you may see smaller fall folliculitis or follicular infractions. This terminates on the lateral aspect of the nose three on each side and we're going to look towards those. Again keep the nasal speculum named away from... The nasal septum as a nasal septum can be quite uncomfortable. You want to look along the nasal septum to see if there's any deviation. Middle turbinate on the lateral wall is what you usually see first and then look superior lean. It's should be able to see the superior terminate for any mucus or drainage that maybe accident from either the nasal lacrimal duct to or from the maxillary in frontal sinus drainage into the nasal cavity.

Another way of examining the nose with the use of a nasal speculum. It's good to learn how to use this gives you a much better field of vision to do this requires two hands free so you will need to use the headlamp and order to assist the advent of LED headlamps as opposed to hot bulbs is greatly facilitated this activity. I just use my climbing headlines. So do use the nasal speculum you have a good light again. You tilt the head back and the speculum goes in this way again you do not want to do. This is that will run up against the septum indeed quite uncomfortable and this allows you to really give a very good view along the septum then along the lateral wall and the terminates if you're going to approach epistaxis. It's virtually essential to use a nasal speculum to identify the bleeding points and get control.

Next we'll examine the mouth, and extraction of **the oropharynx**. To do this we're going to begin once again with inspection examining the lips. For symmetry open your mouth, ok, showing your teeth, ok, nice symmetrical contraction, stick your tongue out. Ok, good. And now we're going to examined using the tongue blade. Proper use of the tongue blade is important and should be held in this position so that you using your thumb as a fulcrum. For best examination start with the buccal mucosa, just relax your tongue and we're going to examine... along the gum line, superiorly and inferiorly, sorry about that, little discomfort again. Good. Next we're going to examine along the gum line inferiorly, gently retracting the tongue, lift the tongue to the roof of your mouth and again examining under the tongue at the orifices of the submandibular and minor salivary glands.

To examine the hard palate you tilt the head back fairly for open the mouth and look atthe hard palate. And here's the junction of the hard and soft palates common to see tours which is a bony prominence. Usually in the midline of the hard palate is a no significance. To examine the oropharynx again, open the mouth gently, the tongue should stay behind the lower insiders.

Mistake, common mistake to have the patient poke the timing out that tightens the target, makes it more difficult to see. So gentle pressure then on the center of the tongue will review over the oropharynx, the tonsillar pillars they [a:] and when the patient says [a:] he raises the soft palate and uvula symmetrically. Well, you're inspecting our furniture looking for any drainage and the asymmetry of the oropharynx once again, and gentle pressure will give you all the exposure that you need in that area.

Palpation of the oral structures can be very useful. Again this is done gently. Anytime you suspect the lesion in the lips, tongue, or cheek, or the floor of the mouth that should be palpated. You can get a lot of information this way in terms of size, consistency in association with, with other structures. So to expect the lips just relax, we can turn the upper lip and gently feel that lower lip can be exposed. I'm a certain finger here and we're going to feel the cheek just gradually relaxed shut your mouth. By shutting the mouth we keep the tissues relaxed and I'm just roll in the tissue between my fingers. Ok this is the area of standstill duct, drainage the product gland, again on this side, same thing. That's not too uncomfortable for the patient, nobody particularly those out of the way for that. Next we're going to examine the floor of the mouth, again gently open mouth. Good. Insert my finger along the lateral side of the tongue inside of the teeth and then gentle pressure close slightly. And feel the submandibular gland right here and the structures of the floor of the mouth. Ok I'll do it. Are you right? Good. And again move slowly and gently noticing any enlargement of the structures, any tenderness. Alright we're doing there. Ok lastly we're going to palpate the dorsal surface of the tongue, tilt your head back, open wide and when I do this relax for a second. This is the one part where you make ga-ga patient and they may have a tendency to bite down on you to protect yourself from that I'm going to use a finger to push his cheek between in teeth that way. If he starts to bite down he bites himself before me and I'll reflexibly stop that motion.

So open wide I'm going to push here and I just how palpate the dorsum of the tongue. Ok, good. And that's very important the tongue has a very large muscle and can hide masses and firmness. This inflammation or infection you feel that is in duration or hardness. The asymmetry lingue cancer's not at all uncommon in people who are users of alcohol and tobacco. And palpation can identify lesions that you would think would be trivial by visual inspection but when you feel them you may feel quite sizable abnormality. And that completes the oral examination. We'll talk another session about examining the nasopharynx and the larynx with the mirror. Fiber optics are largely replacing the mirror in the hands of otolaryngologists but primary care physicians should be quite professional with using a mirror can give you a lot of additional information. And with a little practice is not difficult to do and I'll do that in a subsequent session.

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