**\*ANATOMY \* MANDIBULAR NERVE \* LEC.12**

* **Introduction:**- Mr. trigeminal nerve divides into 3 branches: 1. Ophthalmic  
   2. Maxillary  
   3. **Mandibular**   
  - Mandibular nerve :  
   🡪 the largest branch of trigeminal  
   🡪 passes through foramen ovale  
   🡪 gives motor and sensory branches “mixed”  
   🡪 it’s sensory branches “from anterior toposterior” : 1. Buccal  
   2. Lingual  
   3. Inferior alveolar  
   4. Auriculotemporal  
   🡪 buccal nerve of mandibular passes medial to ramus of mandible, **opposite** to the buccal branch of facial “motor”.   
   🡪 lingual nerve: crosses the submandibular duct, then it will go to the tongue.

* **Story of chorda tympani: page #6**- notice the: - trigeminal nerve “stem”  
   - trigeminal ganglion  
   - it’s 3 branches  
    
  - notice the : - mandibular nerve  
   - foramen ovale   
   - lingual nerve : - it’s joined with the chorda tympani “befor passing between lateral and medial pterygoid muscles  
   - chorda tympani originates from facial nerve “tha leaves the skull through “**stylomastoid foramen**”  
    
  - **Facial nerve**: - leaves the skull through stylomastoid foramen  
   - before entering it’s related foramen, it will give branch that will go to the lateral wall of the ear “middle ear”, known as chorda tympani  
   - **otitis media** may affect the chorda tympani, because it exists within **thin** canal that can be eroded by otitis, therefore affecting the tympani  
   - chorda tympani joins with lingual nerve with it’s sleeve  
    
  - **lingual nerve** : - after joining the tympani, it became in mixture:

1. Lingual “itself”🡪 for general sensation  
 2. Chorda tympani:  
 🡪 for special sensation  
 🡪 synapses with submandibular ganglion “relay”  
 🡪 all the part of chorda tympani before synapsis called “preganglionic parasympathetic”  
 🡪 this synapse gives postganglionic fibers : **1. Secretomotor fibers to submandibular gland  
 2. Secretomotor fibers to the sublingual gland  
 3. Special sensation secretomotor for anterior to two third of tongue “ taste buds: sour/bitter/sweat/salty”**  
- dental carries may affect the inferior alveolar nerve  
- mental nerve may be visible through oral mucosa in old age people.  
- neck of the mandible is so important for us as dentists  
- auriculotemporal nerve doesn’t supply the skin of the pinna  
- **auriculotemporal nerve isn’t sensory only “it’s sleeve is mixed” ???** ie: 🡪 glossopharyngeal nerve gives branch called “tympanic nerve   
 🡪 tympanic nerve is close to “(tympanic membrane/middle ear)” forming tympanic plexus within  
 🡪 tympanic plexus gives the “lesser petrosal nerve”  
 🡪 lesser petrosal will pass the foramen ovale with mandibular nerve  
 🡪note: foramen ovale transmitting : 1. Mandibular nerve  
 2. Lesser petrosal nerve  
 3. Accessory middle meningeal artery “if present”  
  
 🡪 as the lesser petrosal descends downward, it faces the “otic ganglion” where it will synapse  
 🡪 so all the part of lesser petrosal before synapsing is the preganglionic parasympathetic part  
 🡪 from this ganglion, it will give postganglionic secretomotor fibers to the parotid gland “through the auriculo temporal nerve within it’s sleeve”  
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* + **Salivary glands:**- we have 3 pairs of salivary glands : 1. Parotids 🡪 supplied by glossopharyngeal nerve “lesser petrosal” through auriculotemporal nerve  
     2. Submandibulars  
     3. sublinguals **🡪 note:  
     - otic ganglion : - located within the infratemporal fossa below foramen ovale  
     - it’s a relay station of lesser petrosal nerve “from IX”**

**By facial nerve “chorda tympani through lingual nerve**

**--------------------------------------------------------------------------------------------------------------------------  
 # Hope everything is clear ☺  
 # fight for the top ☺  
  
 doen by : dana ayman**