**If there is any problem plz tell me, I will try to help .
Revision :**

**\*Level through caudal part of pons (facial colliculus ) :**

* **U can see : 1- superior peduncle , middle peduncle and inferior peduncle .
 2- trapezoid body : part of auditory nucleus .
 3- MLF .
 4- abducent nucleus “ more medial ” + facial nucleus “ lateral to Abd. Nucleus ”
 5- Pontine nuclei and transverse fibers
 6- Corticospinal and corticonuclear tracts
 7- Medial leminiscus ,lateral leminiscus, spinal leminiscus
 8- Spinal nucleus of trigeminal and its tract**

**\*Level through cranial part (trigeminal nuclei) :**

* **U can see what u see in the caudal part of pons in addition to :
 1- Motor nucleus of trigeminal n
 2-Main Sensory nucleus of trigeminal n (*lateral*)
 3-SCP, MCP
>> the sensation that carried by trigeminal nerve is carried by 3 different nuclei :
1- main sensory ‘ lateral to motor nuclei ’ , it have an extension to mid brain “ to Mesencephalic nucleus ” and extension to spinal cord “ spinal trigeminal nucleus ”
2- motor nuclei
3- Spinal nucleus of trigeminal**

 **Which make direct second order neuron that cross to the opposite side to form Trigeminal leminiscus
 which end in thalamus “ leminiscus = tract found in brain stem make crossing ,end in thalamus, carry
 sensation ” and carry sensation from the face “ all kind , pain ,temperature … ”**

 **>>remember that lateral leminiscus carry hearing sensation ;fiber ascend from cochlear nuclei , fiber
 of the 2nd order neuron will make crossing , this crossed fiber called trapezoid body complete in the
 contralateralside then make tectum in mid brain “on the inferior colliculus ”then terminate in thalamus
 in medial geniculate body ; this is the lateral leminiscus .**

**The midbrain :
\*Lies between the thalamus and the pons**

**\*Tectospinal emerge from tectum that come from sup. Colleculus or inf colliculus**

**\*Colliculus : group of cell bodies make connection with nuclei in thalamus**

**\*Inf. Colliculus >> medial geniculate body**

**\*Sup. Colliculus >> lateral geniculate body**

**\*4th emerge from dorsal aspect of mid brain**

**\* substantia nigra >> mainly dark , it divide the Cerebral peduncle into anterior part crus cerebri and posterior part tegmentum .**

**>>> notice Corticospinal & corticonuclear fibers (middle) Frontopontine fibers (medial) Temporopontine fibers (lateral)**

**>> how to discriminate the level of the section ? Either Level of inf. Colliculus or Level at superior colliculus?**

**\* Because the fiber emerge from dorsal aspect of mid brain and \* the decussating fiber indicate that u r in the trochlear level. ( واحدة من ثنتين يا اما تشوف الرد نكليس وتحكم عليه انه من السوبيريور لفل اوانك تشوف الديكسيشن وهاي بتكون انفيريور لفل)**

**\*At the site of aqueduct, there id nucleus for trigeminal nerve.**

**\*U can see MLF.**

**\*Level at superior colliculus , instead of decussating fiber , 2 round nuclei will appear called red nucleus.**

**\*At lateral side of cerebral aqueduct there will be mesencephalic nucleus of trigeminal nerve .**

**\*Substantia nigra : any defect will lead to Parkinson disease during rest because Substantia nigra control muscle tone**

**and movement >>> so there will be a connection between the Substantia nigra and any structure control motor movement ( cerebral cortex, spinal cord , cerebellum , basal ganglia “it will discuss later ”**

**\*Slide 41 : blue lines and dot : sensory nuclei
 red lines and dot : motor nuclei**

**\*Slide 42 : open medulla >> central canal opens on 4th venrtricel**

**\*Slide 46 >> through medulla >> go back to slide 42 to discriminate the structure .
 5 >> not included**

**\* Slide 47 >> go back to 45
 6 >> trigeminal nerve
 2 >> occulomotor nerve
 5 >> medial leminesus
 4 >> corticospinal of crus cerbi
 3 >> not included
…..
u should keep in ur mind what is mentioned in the “ brainstem\_sections\_pons-midbrain PPt ”
dr said that u should keep all thing either within box or no !!**

 **“Respect is a two-way street, if you want to get it, you've got to give it.”
― R. G. Risch**