

four filaments to the upper part of the medulla oblongata, in the groove between the olive and the inferior peduncle.

The **sensory fibers** arise from the cells of the superior and petrous ganglia, which are situated on the trunk of the nerve, and will be presently described. When traced into the medulla, some of the sensory fibers, probably sympathetic afferent, end by arborizing around the cells of the upper part of a nucleus which lies beneath the ala cinerea in the lower part of the rhomboid fossa. Many of the fibers, probably the **taste fibers**, contribute to form a strand, named the **fasciculus solitarius**, which descends in the medulla oblongata. Associated with this strand are numerous nerve cells, and around these the fibers of the fasciculus end. The **somatic sensory fibers**, few in number, are said to join the spinal tract of the trigeminal nerve.

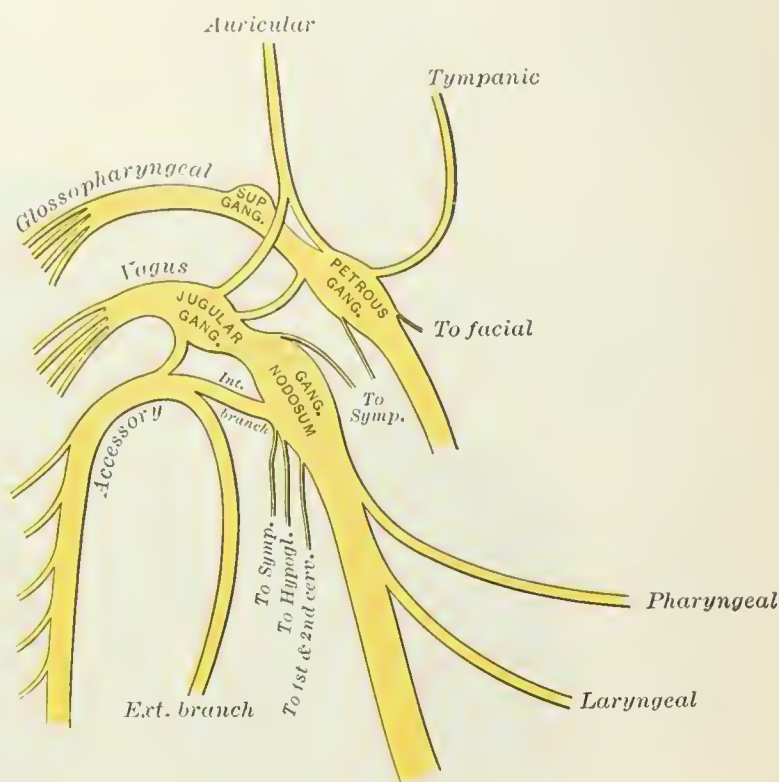


FIG. 791.—Plan of upper portions of glossopharyngeal, vagus, and accessory nerves.

The **somatic motor fibers** spring from the cells of the **nucleus ambiguus**, which lies some distance from the surface of the rhomboid fossa in the lateral part of the medulla and is continuous below with the anterior gray column of the medulla spinalis. From this nucleus the fibers are first directed backward, and then they bend forward and lateralward to join the fibers of the sensory root. The nucleus ambiguus gives origin to the motor branches of the glossopharyngeal and vagus nerves, and to the cranial part of the accessory nerve.

The **sympathetic efferent fibers** from the nucleus beneath the ala cinerea, the dorsal nucleus, are probably both preganglionic motor fibers and preganglionic secretory fibers of the sympathetic system. The secretory fibers pass to the otic ganglion and from it secondary neurons are distributed to the parotid gland. Some authors describe these fibers as arising from a distinct nucleus the inferior salivatory nucleus, which lies near the dorsal nucleus.

From the medulla oblongata, the glossopharyngeal nerve passes lateralward across the flocculus, and leaves the skull through the central part of the jugular foramen, in a separate sheath of the dura mater, lateral to and in front of the vagus and accessory nerves (Fig. 792). In its passage through the jugular foramen, it grooves the lower border of the petrous part of the temporal bone; and, at its exit from the skull, passes forward between the internal jugular vein and internal carotid artery; it descends in front of the latter vessel, and beneath the styloid process and the muscles connected with it, to the lower border of the Stylopharyngeus. It then curves forward, forming an arch on the side of the neck and lying upon the Stylopharyngeus and Constrictor pharyngis medius. Thence it passes under cover of the Hyoglossus, and is finally distributed to the palatine tonsil, the mucous membrane of the fauces and base of the tongue, and the mucous glands of the mouth.