

palatine foramen. It is triangular or heart-shaped, of a reddish-gray color, and is situated just below the maxillary nerve as it crosses the fossa. It receives a sensory, a motor, and a sympathetic root.

Its **sensory root** is derived from two sphenopalatine branches of the maxillary nerve; their fibers, for the most part, pass directly into the palatine nerves; a few, however, enter the ganglion, constituting its sensory root. Its **motor root** is probably derived from the nervus intermedius through the greater superficial petrosal nerve and is supposed to consist in part of sympathetic efferent (preganglionic) fibers from the medulla. In the sphenopalatine ganglion they form synapses with neurons whose postganglionic axons, vasodilator and secretory fibers, are distributed with the deep branches of the trigeminal to the mucous membrane of the nose, soft palate, tonsils, uvula, roof of the mouth, upper lip and gums, and to the upper part of the pharynx. Its **sympathetic root** is derived from the carotid plexus through the deep petrosal nerve. These two nerves join to form the nerve of the pterygoid canal before their entrance into the ganglion.

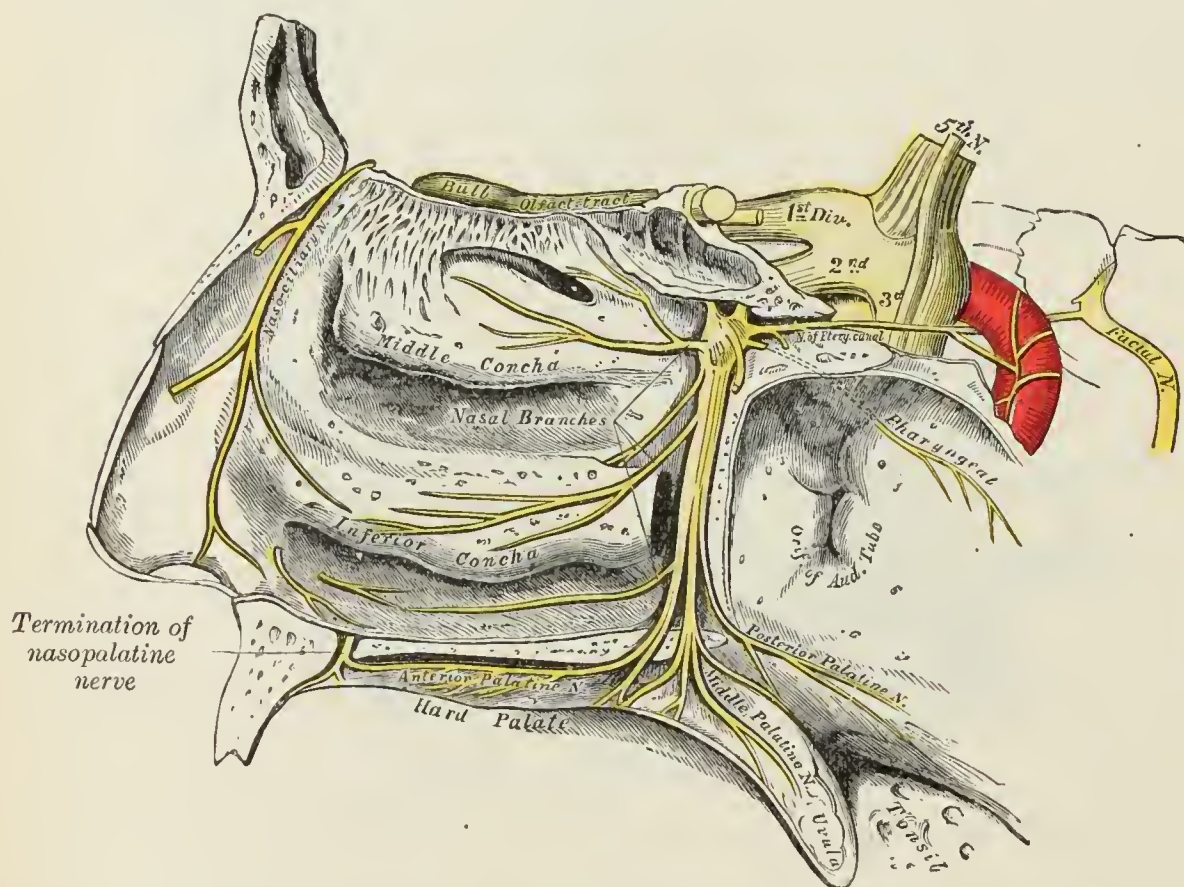


FIG. 780.—The sphenopalatine ganglion and its branches.

The **greater superficial petrosal nerve** (*n. petrosus superficialis major*; *large superficial petrosal nerve*) is given off from the genicular ganglion of the facial nerve; it passes through the hiatus of the facial canal, enters the cranial cavity, and runs forward beneath the dura mater in a groove on the anterior surface of the petrous portion of the temporal bone. It then enters the cartilaginous substance which fills the foramen lacerum, and joining with the deep petrosal branch forms the nerve of the pterygoid canal.

The **deep petrosal nerve** (*n. petrosus profundus*; *large deep petrosal nerve*) is given off from the carotid plexus, and runs through the carotid canal lateral to the internal carotid artery. It then enters the cartilaginous substance which fills the foramen lacerum, and joins with the greater superficial petrosal nerve to form the nerve of the pterygoid canal.

The **nerve of the pterygoid canal** (*n. canalis pterygoidei* [Vidii]; *Vidian nerve*),