

in one of the sympathetic plexuses. In all cases they end by forming synapses around other nerve cells. From the cells of the ganglia of the sympathetic trunk other fibers, postganglionic fibers, take origin; some of these run through the gray rami communicantes to join the spinal nerves, along which they are carried to the bloodvessels of the trunk and limbs, while others pass to the viscera, either directly or after interruption in one of the distal ganglia. The *afferent* fibers are derived partly from the unipolar cells and partly from the multipolar cells of the spinal ganglia. Their peripheral processes are carried through the white rami communicantes, and after passing through one or more sympathetic ganglia (but always without interruption in them) finally end in the tissues of the viscera. The central processes of the unipolar cells enter the medulla spinalis through the posterior nerve root and form synapses around either somatic or sympathetic efferent neurons, thus completing reflex arcs. The dendrites of the multipolar nerve cells form synapses around the cells of type II (cells of Dogiel) in the spinal ganglia, and by this path the original impulse is transferred from the sympathetic to the somatic system, through which it is conveyed to the sensorium.

Divisions.—After emerging from the intervertebral foramen, each spinal nerve gives off a small **meningeal branch** which reënters the vertebral canal through the intervertebral foramen and supplies the vertebræ and their ligaments, and the bloodvessels of the medulla spinalis and its membranes. The spinal nerve then splits into a **posterior or dorsal**, and an **anterior or ventral division**, each receiving fibres from both nerve roots.

POSTERIOR DIVISIONS OF THE SPINAL NERVES (RAMI POSTERIORES).

The **posterior divisions** are as a rule smaller than the anterior. They are directed backward, and, with the exceptions of those of the first cervical, the fourth and fifth sacral, and the coccygeal, divide into medial and lateral branches for the supply of the muscles and skin (Figs. 800, 801, 802) of the posterior part of the trunk.

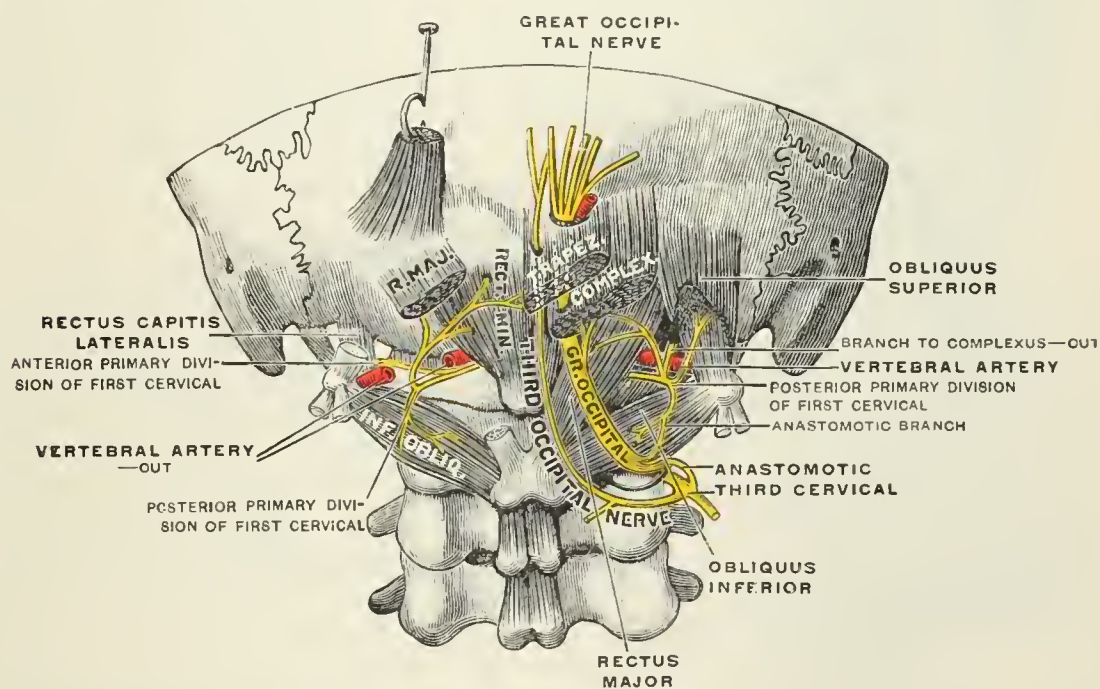


FIG. 800.—Posterior primary divisions of the upper three cervical nerves. (Testut.)

The Cervical Nerves (Nn. Cervicales).

The **posterior division of the first cervical or suboccipital nerve** is larger than the anterior division, and emerges above the posterior arch of the atlas and beneath the vertebral artery. It enters the suboccipital triangle and supplies the muscles which bound this triangle, viz., the Rectus capitis posterior major, and the Obliqui superior and inferior; it gives branches also to the Rectus capitis posterior minor