The third cervical ventral spinal rami leave the vertebral column above the transverse processes of C3 and emerge between longus capitis and scalenus medius, deep to the internal jugular vein and the sternocleidomastoid muscle.

Each rami divides into ascending and descending branches, which join the descending branches of the second cervical ventral rami and the ascending branches of the fourth cervical ventral rami, respectively.

The third cervical ventral spinal rami join with the ventral rami of C2 to form the inferior root of the ansa cervicalis and with the ventral rami of C4 and C5 to form the phrenic nerves. Together with the ventral rami of C1, C2 and C4 the third cervical ventral spinal rami also participate in the formation of the cervical plexus.

Each ramus receives at least one grey ramus communicans from the superior cervical sympathetic ganglion.

Supply

The third cervical ventral spinal rami supply the longus capitis, longus colli, scalenus medius, levator scapulae and sensory innervation for the sternocleidomastoid and trapezius muscles. Superficial branches supply the skin of the head and neck via the greater auricular nerve, the transverse cutaneous nerve of the neck and the supraclavicular nerves.