The first cervical ventral spinal rami emerge above the posterior arch of C1 (atlas). Each ramus passes antero-lateral to the lateral mass and medial to the vertebral artery and rectus capitis lateralis, which it supplies. The nerve passes anterior to the transverse process of C1 and deep to the internal jugular vein and the sternocleidomastoid muscle to join the ascending branch of the ventral ramus of C2 (axis).

Each ramus receives at least one grey ramus communicans from the superior cervical sympathetic ganglion as it descends anterior to the transverse process of C1.

Together with the ventral rami of C2, C3 and C4 the first cervical ventral rami participate in the formation of the cervical plexus.

Supply

The first cervical ventral spinal rami supply the rectus capitis lateralis, rectus capitis anterior and longus colli. It gives a branch to the vagus nerve (X cranial nerve) and a branch, which runs with the hypoglossal nerve (XII cranial nerve), to supply the geniohyoid and thyrohyoid muscles and forms the superior root of the ansa cervicalis.