The seventh thoracic ventral spinal rami exit the vertebral column through the intervertebral foramina between the pedicles of T7 and T8. They emerge above the transverse processes of T8 and pass into the intercostal spaces between the pleura and internal intercostal membrane (fascia), where each ramus receives at least one grey (proximal) and white (distal) rami communicantes from adjacent sympathetic ganglia.

The rami then pass below the intercostal vessels in the neurovascular plane between the seventh internal and innermost intercostal muscles. Before reaching the costal angle they give rise to collateral and lateral branches. The collateral branches follow the inferior borders of the intercostal spaces. Near the end of the intercostal space they cross the deep intercostal surfaces supero-medially between the digitations of transversus abdominis to the deep aspect of the posterior layer of the internal oblique aponeurosis, which they pierce to supply rectus abdominis and terminate in the overlying skin as the seventh anterior cutaneous nerves of the thorax. The lateral cutaneous branches pierce the intercostal muscles obliquely and then divide into anterior and posterior branches, which pierce serratus anterior to supply the overlying skin and a strip of skin over the abdomen.

Supply

The seventh thoracic ventral rami supply the seventh intercostal muscles and adjacent skin over the front and sides of the chest, the abdominal muscles and a strip of skin overlying them, as well as sensory innervation to the costal part of the diaphragm.