The fourth thoracic dorsal spinal rami run posteriorly, adjacent to the zygapophyseal joints between T4 and T5 and divide into medial and lateral branches.

The medial branches emerge between the joints and the medial edges of the superior costotransverse ligaments and the intertransversarii muscles, to pass between the semispinalis thoracis and multifidus muscles to reach the spinous processes of T4 and T5. Here they pierce the rhomboideus and trapezius muscles to terminate in the overlying skin.

Supply

The medial branches of the fourth thoracic dorsal spinal rami supply the semispinalis thoracis and multifidus muscles and the skin overlying the fourth and fifth thoracic spinous processes.