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

## Supply

The fourth thoracic dorsal spinal rami supply the semispinalis thoracis, multifidus, levatores costarum and interspinales muscles as well as the skin overlying the fourth and fifth thoracic spinous processes.