The medial branches of the second cervical dorsal spinal rami also referred to as the 'greater occipital nerves', emerge with the smaller lateral branches below the obliquus capitis inferior muscles.

Each medial branch ascends between the obliquus capitis inferior and semispinalis capitis muscles, which it pierces along with the trapezius muscle, close to its occipital attachments. Here the medial branch receives branches from the corresponding branch of the dorsal ramus of C3. It then proceed with the occipital artery to supply the skin over the scalp as far forward as the vertex, which connect with the lesser occipital nerves, via small branches.

Supply

The medial branches of the second cervical dorsal spinal rami supply semispinalis capitis and may supply the back of the auricle.