



Figure 4. Section through the caudal medulla (left picture; “11-medulla” in [Sylvius4 Online](#)). The shape is similar to that of the spinal cord (a section through the cervical cord is shown in top right picture; “14-Spinal Cord-cervical” in [Sylvius4](#)). But, although the internal organization bears a resemblance to that of the spinal cord, there are some obvious differences. First, the **medullary pyramids** occupy the base of the caudal medulla; the anterior columns of the spinal cord do not contain so many fibers (and do not have the same pyramidal shape). On the other hand, the lateral columns are quite large in the cervical spinal cord, but there are relatively few myelinated axons in the lateral part of the caudal medulla. The bottom right picture is a photograph of the point of transition between the spinal cord and medulla (“13-medulla” in [Sylvius4 Online](#)). Here, at the level of the **pyramidal decussation**, the axons in the pyramids not only cross the midline, they also move laterally to enter the lateral columns of the spinal cord. This change in relative location of the axons explains why the anterior columns of the spinal cord are smaller in size and why the lateral columns are larger when the spinal cord is compared to the caudal medulla. A second difference between the spinal cord and lower medulla is that in the spinal cord, the dorsal columns are made up exclusively of white matter. In the caudal medulla, you can still see bundles of axons dorsally but now cell groups (the **dorsal column nuclei**) have appeared in the same location. These nuclei are second order sensory nuclei that will be discussed in a later session of this course. Finally, note that a cell group that resembles the dorsal horn is also present in the caudal medulla (it is labeled “dorsal horn?”). This is a nucleus known as the **spinal trigeminal nucleus**, and it is continuous with the dorsal horn of the spinal cord and serves comparable functions, except for representation of a different region of the body.