Mainly, the three common areas that give rise to the cerebral peduncles are the cortex, the spinal cord and the cerebellum.

The cerebral peduncle, by most classifications, is everything in the mesencephalon except the tectum.

The region includes the midbrain tegmentum, crus cerebri and pretectum. By this definition, the cerebral peduncles are also known as the basis pedunculi, while the large ventral bundle of efferent fibers is referred to as the crus cerebri or the pes pedunculi. There are numerous nerve tracts located within this section of the brainstem. Of note, in the cerebral peduncular loop fibers from motor areas of the brain project to the cerebral peduncle and then project to various thalamic nuclei.

Important fibers running through the cerebral peduncles include the corticospinal tract and the corticobulbar tract, among others. This area contains many nerve tracts conveying motor information to and from the brain to the rest of the body.

see Cerebral peduncle tumor