

Abstract

Variant termination of basilar artery influences occurrence of atherosclerosis and aneurysms, and is also important during cerebrovascular surgery and interventional neuroradiology at the basilar bifurcation, interpeduncular fossa and clivus. There are, however, hardly any reports on these patterns. The purpose of this study was to describe the pattern of termination of the basilar artery in a black Kenyan population. One hundred and seventy three (99 male; 74 female) adult cadaveric and autopsy brains of black Kenyans (age range 20-79) were examined. The basilar artery was exposed in its entire length, terminal branches identified and termination pattern recorded. Representative patterns of variations were photographed with a high resolution digital camera. Data were analyzed for frequency and are represented in a pie chart and macrographs. Bifurcation occurred in 142 (82.1%) of cases. In some of these cases, the superior cerebellar and posterior cerebral arteries had a common trunk of origin. Variant terminations included trifurcation (18, 10.4%), quadrifurcation (10, 5.8%) and penta-furcation (3, 1.7%). All the variants were related to duplication and/or point of origin of the superior cerebellar artery and occurrence of common trunk of origin for superior cerebellar and posterior cerebral artery. Variant termination of the basilar artery occurs in 17.9% of cases. These variations are related to the pattern of origin of superior cerebellar artery. Anticipation of these variations is important during neuroradiology, cerebrovascular surgery and interpretation of posterior circulatory stroke.