

Abstract

Knowledge of the branching pattern of aortic arch is important during supraaortic angiography, aortic instrumentation, thoracic and neck surgery. Variant patterns are often associated with congenital cardiovascular malformations. The branching pattern shows population variation but there are no data for black Kenyans. The purpose of this study was to describe the pattern in a Kenyan population. One hundred and thirteen aortic arches of adult black Kenyans were exposed during cadaver dissection classes in the Department of Human Anatomy, University of Nairobi and their branches examined. All variations were recorded and photographed. The results are presented in macrographs and a table. Seventy six (67.3%) of the aortic arches showed classical 3 branch pattern of brachiocephalic, left common carotid and left subclavian arteries. Six variants were observed. The most common (25.7%) variation was that of two branches namely a common trunk for the brachiocephalic and left common carotid, and the left subclavian artery; followed by direct arch origin of the vertebral artery in 7 cases (6.2%). In 4 (3.5%) cases the arch had four branches. Over 30% of individuals in the Kenyan population may show variant branching pattern of the aortic arch. This should be taken into account during angiography, aortic instrumentation, supraaortic thoracic, head and neck surgery. Evaluation of cardiovascular malformations in the population is recommended.