

Guest Editorial

# Cerebral Artery Hypoplasia among Black Kenyans

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Mortality due to stroke has declined but the global burden of stroke is still in increase.<sup>1</sup> The vascular anatomy and pathology have to be clearly understood for the effective management of the stroke. The circulus arteriosus (Circle of Willis) is an arterial anastomosis which maintains the cerebral blood flow. The strokes are of two varieties, ischemic and hemorrhagic. Among all the ischemic strokes, the anterior cerebral artery territory constitutes only approximately 0.6 to 3%.<sup>2</sup> The cerebral blood flow of different anatomical variations can be of help for the understanding of collateral circulation.<sup>3</sup> In this study by Ogengo et al,<sup>4</sup> the authors made an attempt to observe the cerebral artery hypoplasia in the East African sample population. The “Charcot artery of cerebral hemorrhage,” which is a branch of the middle cerebral artery, is the most common artery to bleed. Here, in this study from the Kenyan population, Ogengo et al<sup>4</sup> observed that the middle cerebral artery is least commonly affected with the hypoplasia. This suggests that the middle cerebral artery is prone for hemorrhagic stroke than ischemic. In this study, 73.4% of the cadaveric brain specimens showed the arterial hypoplasia. Perhaps this is the reason for most of the people who suffer from headache, migraine, and transient cerebral ischemia. Hypertension, cigarette smoking, and diabetes are the risk factors for the stroke.<sup>5</sup> Cerebrovascular accidents can be prevented by taking aspirin prophylaxis and lifestyle modification, like routine exercises. However, few things are genetically determined that persist and progress into the adult life.

In this Kenyan African study,<sup>4</sup> the authors observed that the posterior communicating artery, which connects the carotid and vertebral arterial system, is more prone for hypoplasia. This factor may hinder the effective anastomosis between

the major arterial inputs of brain. The authors have also compared their observation bilaterally for the paired arteries. The frequency was also compared with other population groups of various nations, globally. I believe that this type of population-based studies is of paramount importance. These studies will help the clinician to have effective population-based strategies such as control of risk factors. The literature will aid in the reduction of stroke-related morbidity and mortality.<sup>6</sup>

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## Conflict of Interest

None declared.

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