

Twelve cadaveric specimens were used for surgically simulating a MMA-PCA and a MMA-SCA bypass. A pretemporal MMA-preserving craniotomy was performed, to avoid injury to the anterior and common trunk of MMA. After harvesting the MMA from the dura, the P2-PCA was exposed in the ambient cistern and an MMA-P2 end-to-side anastomosis was performed. Thereafter, a subtemporal corridor was used for tentorial incision and exposure of S2-SCA. An end-to-side MMA-S2 bypass was completed. The measurements recorded included the donor and recipient vessel calibers and the length of MMA required for the bypasses.

The MMA-UPC bypass was performed in all specimens. The diameter of PCA was 2.7 (SD=0.4) mm and that of SCA was 1.9 (SD=0.3) mm at the anastomotic site. The mean diameter of MMA was 2.08 (SD=0.24) mm at the FS and 1.7 (SD=0.22) mm at the anastomotic site. The MMA length required was 38 (SD=2.98) mm for MMA-P2 and 33.5 (SD=3.2) mm for MMA-S2 bypass.

- 1.To understand the potential of MMA as a donor for revascularization of the upper posterior circulation
- 2.To discuss the technical nuances of the MMA-UPC bypass and to understand the advantages of using the MMA over other native donors.