**Table 1: Different classifications of M1 and M2 segments of the Middle Cerebral Artery**

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| --- | --- | --- | --- | --- |
| Type of classification | Authors  (Year of Publication) [References] | M1 segment | M2 segment | Additional features |
| Classical/Anatomical | Gibo 1981 [9] | Starts at the origin of MCA and terminates at the genu which is the junction of sphenoidal and operculoinsular compartments of the Sylvian fissure | Continues from genu terminating at the circular sulcus of the insula |  |
| Umansky 1984 [14] | From the origin of the main trunk at the ICA to its main divisions (bifurcation) | Secondary trunks which are the main divisions from the main trunks referred to as superior, middle and inferior depending on the main divisions |  |
| Oo 2021 [16] | From the origin of the main trunk to the bi/trifurcation point, or  From the origin of the main trunk to the site of the first cortical branch in cases where there was no bi/trifurcation. | From the point of bi/trifurcation to the cortical segments supplied by the cortical arteries | Early bifurcation was defined as the bifurcation occurring within 1cm from the origin of the main trunk |
| Structural/Calibre | Saver 2020 [21] | From the origin of the MCA and defined based on size and tortuosity/distance. Vessel diameter more than 2.0mm is considered to be large vessel. | The M2 segment can be considered a large vessel especially in the dominant branch if the size is >2.0mm or medium vessel if it is non-dominant with the size is between 0.75 to 2.0mm which can be similar to an M3 | The distal cerebral arteries are distinguished by longer distances and more tortuous cumulative travel pathways from the arterial puncture site. Distal arteries have ≥1 additional branch steps than proximal arteries and also loop around neuroanatomic structures such as the insula and temporal lobe |
| Functional/Imaging | Goyal 2015 [11] | From the origin to the site of bifurcation or trifurcation | From bifurcation/ trifurcation to the circular sulcus of the insula/exit from the Sylvian fissure | Anterior temporal artery is not considered to be M2 unless it artery is large whereby it supplies territories beyond the anterior temporal lobe |
|  | Zaidat 2013 [18] | From the first portion of the MCA until the major bifurcation | Continuing from major bifurcation however extent not mentioned |  |
|  | Khatri 2020 [22] | From the origin of the main trunk to the point of bifurcation of the sphenoidal segment – this point was noted by drawing a perpendicular line from the angiographic Sylvian point  Further divided into ‘classic’ when the bifurcation occurred at the genu  and ‘non-classic’ bifurcation occurred before the genu | Continuing from point of bifurcation of the sphenoidal segment however extent not mentioned | Early bifurcation was defined as the bifurcation occurring within 10mm from the origin of the sphenoidal segment or the terminal ICA  The anterior temporal artery, regardless of its size, did not determine the MCA bifurcation pattern |
|  | Tomsick 2016 [24] | 1) From origin of main trunk of MCA to point of main bifurcation  2) From origin of main trunk to the origin of a holo-temporal or posterior temporal artery | 1) Continuing from the main bifurcation however extent not mentioned.  2) If holo-temporal or posterior temporal arteries are present,  continuation of the main trunk beyond this is M2 trunk | Anterior temporal artery is considered a branch of the M1.  Holo-temporal artery and posterior temporal arteries taking origin from the main trunk are considered an M2 segment. |

MCA: middle cerebral artery; ICA: internal carotid artery