



Spontaneous Intradural Cerebral Artery Dissection: Spectrum of Clinical Presentations and Correlation with Angiographic Findings

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Aim: Intradural Cerebral Artery dissections are recognized cause of stroke. Aim of this study was to analysis the distribution of spontaneous intradural cerebral artery dissection, angiographic pattern with the symptomatology of admitted patients to our hospital. **Materials and Methods:** We analyzed retrospectively collected data of the stroke patients' and carefully evaluated on 4-vessels angiogram in our institute from January 2013 to June 2014. Out of 164 of cerebral dissections in angiographically evidenced we found only 16 patients of intradural dissecting aneurysms that were included in this study. The male-female ratio was 37.5: 62.5 and the mean age was 47.56±13.19 years. According to the angiographic finding depicting the location of the dissection plane in the arterial wall, we categorized to steno-occlusive, aneurysmal, combined pattern. In each dissection pattern, we evaluated presenting symptoms and presence of subarachnoid hemorrhage, infarction, and intracerebral hemorrhage or combined. **Results:** The most common symptomatic presentation was headache (75%), followed by neck pain (50%), motor weakness of limb(s) (43.8%), loss of consciousness (37.5%), vertigo (12.5%), vomiting (12.5) and arm tingling sensation (6.3%). The most common angiographic pattern was aneurysmal patterns (68.75%) followed by steno-occlusive (18.75%) and

combined (steno-occlusive and aneurysmal) (12.5%) patterns. aneurysmal pattern was most frequently related to subarachnoid hemorrhage (SAH) (7/11, 63.63%) in contrast that steno-occlusive pattern was only related to infarction (3/3, 100 %). The most frequent dissection was in the intradural vertebral arteries (IV) and posterior cerebral artery (PCA), presented with SAH 80% (4/5) and 33.33 % (1/3) respectively followed by infarction and intracerebral hemorrhage (ICH). Infarction was common abnormality in patients with the intradural carotid arteries(IC) 33.33%(1/3), superior cerebellar artery(SCA) 33.33%(1/3) and basilar artery(BA) 33.33% (1/3) each but intracerebral hemorrhage(ICH) was common abnormality in patients with the posterior inferior cerebellar artery(PICA) 50%(1/2).

Conclusion: The most common symptomatic clinical presentations of intradural cerebral artery dissection are headache and neck pain followed by motor weakness of limbs and loss of consciousness. SAH with aneurysmal pattern, in the posterior circulation especially in the vertebral artery is the most frequent diagnosis of in intradural cerebral artery dissection which requires combined analysis of angiographic pattern and clinical presentations of stroke.

Key Words: Intradural cerebral arteries; Dissection; Aneurysm;

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