

VARIATIONS OF CIRCLE OF WILLIS RELATED WITH HYPOPLASIA OF POSTERIOR COMMUNICATING ARTERY AND ISCHEMIC STROKE

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One of the most frequent variations of circle of Willis is hypoplasia of posterior communicating artery (P. Co. A), this is a congenital variation that is founded in 7-20% of population. P. Co. A is a risk factor of ischemic stroke in cases with ipsilateral internal carotid artery (I. C. A), or in mayor stenosis in our study we have examined 100 ischemic stroke patients (mean age 65 ± 15 years) compared with the control group. The cerebral resonance angiography was done within three days of stroke. The incidence of P co A hypoplasia in our group was 18 % (n=18), higher than in control group, 8 % (n=8). In our cases with hypoplasia of P co A (n=18) we have founded 43.8 % (n=8) with occlusion of ipsilateral I.C.A. The most frequent location of ischemic stroke in cases with hypoplasia of P.Co.A was seen in ipsilateral periventricular area (lacunar infarctions), 70% (n=12), and with occipital lobe involment 30% (n=8) In our study we have seen a correlation between P co A hypoplasia and ischemic stroke even in cases without occlusion of ipsilateral I.C.A.

This risk was seen to be higher in the ipsilateral periventricular penetrated arteries area.