**CEREBRAL INFARCTION IS ASSOCIATED WITH MULTIPLE RISK FACTORS IN PATIENTS WITHOUT SEVERE CAROTID SCLEROSIS**

**E. Matsubara**1, T. Matsubara1, T. Tomaru2

1Tokyo University Hospital, Tokyo, Japan

2Heisei Yokohama Hospital, Yohohama, Japan

**Objective:** Cerebral infarction has not been shown to be associated with carotid arteriosclerosis in details. Then, we compared carotid plaque with cerebral infarction by magnetic resonance imaging(MRI ).

**Method:** We evaluated 136 patients who underwent head MRI and carotid ultrasongraphy. Age ranged between 49 and 85(mean age 69.35, male 70.2±8.1 , Female 68.9±9.2 : mean±SD). Plaque score(PS) was calculated by US, and MRI findings were classified as follow CI scores: 0: WNL, 1:leukoaraiosis 2: lacunar infarction, 3: cerebral infarction.

**Results:** CI or lacunar infarction was obserbed in 4(2.7%) out of 15 patients without plaque,15(39.4 %) out of 38 patients with PS of less than 5(mild),22(44%) out of 50 patients with PS between 5 and 10(moderate), and in 12(63.2%) out of 19 patients with PS of more than 10(marked). Incidence of CI or lacunar infarct was greater in patients with PS than in those without. CI score was 1.29±1.2 in patients without plaque, 1.59±1. 32 in mild, 1.62±1.30 in moderate, and 2.27±1.16 in marked(P=0.34 vs cases without plaque).CAVI was 10.88±1.40 in patients with CI or lacunar infarct and 8.70±1.13 in those without (P<0.001). In patients with CI, mean number of risk factor was 3.24 in patients without severe carotid sclerosis, and 3.51 in patients with severe carotid sclerosis. In CI patients without severe carotid sclerosis, smoking or cardiovascular disease was frequently observed in the patients with smaller number of risk factors.

**Conclusion:** In general, carotid arteriosclerosis is associated with degree of cerebral ischemia and aortic stiffness, however, cerebral infarctions may occur in patients with none or mild carotid arteriosclerosis who have risk factors for arteriosclerosis.