E-Poster

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Functional Disabilities in Patients With Branch Atheromatous Disease in Lenticulostriate Artery

Topic: Neuroscience

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BACKGROUND

Branch atheromatous disease (BAD) is a subtype of ischemic stroke caused by perforating arteries occlusion due to proximal atherosclerosis of the arteries. BAD is mainly found in the lenticulostriate artery territory (LSA-BAD) and the para-peduncular artery territory (PPA-BAD). The LSA-BAD typically presents with a higher NIHSS score than the PPA-BAD, with poor recovery in hand and upper limb function. Additionally, it has been reported that LSA infarcts may be associated with neuropsychological changes. However, the frequency of neuropsychological changes by lesion of LSA-BAD and the course of acute-phase rehabilitation have not been reported.

METHODS

We retrospectively collected and analyzed 12 cases of LSA-BAD (average age: 81 years) treated at a stroke unit in single institution between 2022 and 2025. LSA infarctions were divided into proximal type and distal type. The proximal type was further divided into anterior, intermediate, and posterior type according to the middle point of anteroposterior diameter of the lateral ventricle on the MRI. The following parameters were evaluated: clinical symptoms, NIHSS scores at admission or discharge, and FIM at admission or discharge.

RESULTS

Among the 12 patients, 10 had posterior-type, while one patient had anterior-type, and middle-type LSA-BAD, respectively. In the NIHSS, paresis was more severe in the middle- and posterior-types. Although anterior- and middle-type patients presented with aphasia, none of the posterior-type patients were affected by aphasia. The total FIM scores at admission and discharge were higher in the anterior-type patient compared to those in the posterior-type patients. However, the cognitive FIM score was lower in the anterior-type patient who exhibited frontal lobe disorders such as apathy, social behavior disorder, and stereotyped behavior.

CONCLUSION

The present study revealed that there seems a clear symptomatic deviation according to the affected lesion among LSA-BAD patients. While the cognitive problems are more conspicuous in the anterior-type, the motor dysfunction is prominent in the posterior-type.

Statement of Disclosures

None

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