

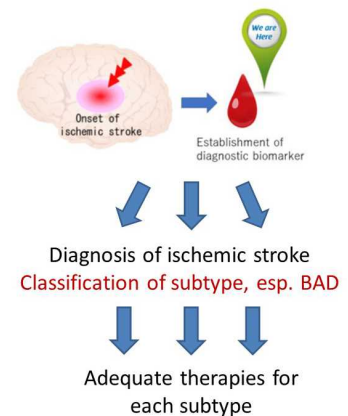
A Novel Acute Phase Diagnostic Biomarker for
Classifying a Subtype of Ischemic Stroke
急性期脳梗塞病型分類のための新規バイオマーカー

【Keywords】

cerebral infarction	BAD	acute phase biomarker in diagnostics	development of diagnostic kit	prognosis predictor
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■ Summary

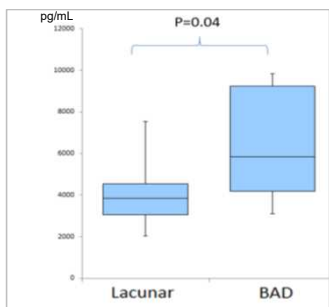
Cerebral infarction is a leading cause of morbidity and mortality worldwide (300,000 and 15 million cases of first strokes in a year in Japan and all over the world, respectively). Branch atheromatous disease (BAD) is a subtype of ischemic stroke, which is characterized by progressive motor deficits. Clinically, BAD is difficult to distinguish from other types of ischemic stroke at onset (especially lacunar type) because of the lack of diagnostic biomarkers. There is no specific therapeutic strategy for BAD because it is hard to identify this subtype early phase by lacking acute phase diagnostic biomarkers. **We identified an acute phase diagnostic biomarker for BAD subtype in the peripheral blood.**



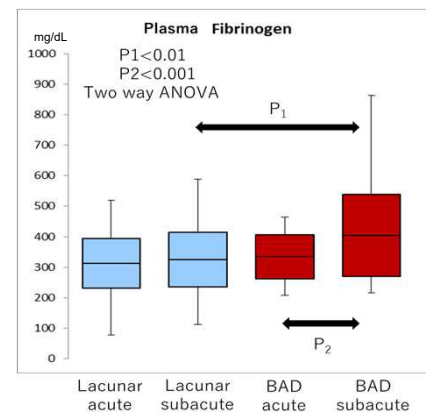
Successful completion of this project may lead to a diagnostic kit for assaying ischemic stroke subtype.

■ Subject Details/Topic

- Acute phase of cerebral infarction Inflammation↑
- Elevated levels of fibrinogen after 14 days after onset reflecting upon inflammation in BAD (right figure)
- ⇒ **But, there was no difference** in levels of fibrinogen and general inflammatory markers among subtypes of ischemic stroke on onset



A peptide was upregulated in BAD on onset!
(left figure, patent application)



○ Advantages

- An *acute phase diagnostic* biomarker for classifying ischemic stroke subtype in the **peripheral blood**. Yes, doctors in clinic can do.

○ Plans

- Lead to a diagnostic kit for assaying ischemic stroke subtype and patent application.

■ We hope to collaborate with... reagent manufacturers

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