## <シンポジウム 01-3>BAD はどう定義し、対応するか;各国の考え方

## Branch atheromatous disease: prognosis and management. The SPS3 experience

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## (臨床神経 2011:51:883)

Stroke due to pathology of small penetrating arteries is common and still remains controversial with respect to mechanisms, prognosis and treatment. Occlusion of small penetrating arteries results in lacunar infarcts which are cavitations not larger than 20 mm and are often located deep in the brain. The pathology of the affected arteries is quite diverse, including; subintimal foam cells, wall disorganization, fibrinoid necrosis and lipohylinosis. Occasionally, obliteration of the parent artery produces giant lacunes. A distinct vascular pathology involving the basilar artery referred as branch atheromatous disease (BAD) is the etiology of a large proportion of pontine infarcts. Both entities (BAD and lipohylinosis) are clinically identical and in addition, it is likely that the prognosis and response to treatment are the same. There-

fore, from the practical point of view this differentiation is purely academic. The Secondary Prevention of Small Subcortical Strokes (SPS3) study is the first clinical trial designed to address clinical scientific questions in patients with symptomatic lacunar infarct defined by magnetic-resonance imaging, which are likely due to small vessel disease. Patients are simultaneously randomized in a  $2\times2$  factorial design, to antiplatelet therapy-aspirin plus clopidogrel vs. aspirin and to two levels of blood pressure control-"intensive" (<130 mmHg) vs. "usual" (130-149 mmHg). The primary outcome is recurrent stroke and secondary outcomes include cognitive decline and major vascular events. Recruitment has been completed with 3,020 patients; results are expected by mid 2012.