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Effect of rheological property on blood flow in vertebral artery branch TAEGEE MIN, S&H Co. Ltd., MYUNGJOON KIM, TAESUNG KIM, Sung Kyun Kwan University, O-KI KWON, Seoul National University — Blocking of an artery is one of mechanisms for cerebral stroke development. If an important cerebral artery is occluded by any reason and if there is no sufficient collaterals, tissue ischemia occurs at brain tissues distal to the occluded artery, which is a well known clinical situation. However, in practice, ischemia or hypoperfusion has also been observed through the branches proximal to the occluded artery. The unexpected “proximal ischemia” is not yet known, from which patients could suffer serious complications. In the present study, two patient cases are presented to elucidate this phenomenon from the view point of fluid dynamics, especially with emphasis on the role of rheology in hemodynamics.

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