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## Treatment experience of ruptured posterior circulation aneurysms in acute period

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**Objective:** To analyze the operative treatment of ruptured posterior circulation aneurysms in acute period.

**Methods:** Retrospective analysis of the clinical materials of 11 cases with 13 posterior circulation aneurysms in acute period of subarachnoid hemorrhage (SAH), which were management in our department during January, 2014 to August, 2015. Including 2 aneurysms on the tip of basilar artery, one aneurysm of basilar-posterior cerebral artery, 5 aneurysms of posterior cerebral artery, one aneurysm of superior cerebellar artery, one aneurysm of anterior inferior cerebellar artery, 3 aneurysms of posterior inferior cerebellar artery. 2 cases were arteriovenous malformation (AVM) with blood flow correlation aneurysms; one case was moyamoya disease with blood flow correlation aneurysm. Four cases were treated by microsurgery clipping, four cases were treated by endovascular embolization and the other three cases were treated by endovascular embolization plus microsurgery clipping.

**Results:** The operations were successfully finished in all cases. The grades of Glasgow Outcome Scale (GOS) were evaluated after one month of operation and 5 cases with grade 5, 4 cases with grade 4, one case with grade 3 and one case with grade 1.

**Conclusion:** Individualized treatment should be used in ruptured posterior circulation aneurysms. The relatively satisfactory curative effects could be achieved in both of the two methods, endovascular embolization and microsurgery clipping. But very poor prognosis would be received in ruptured posterior circulation aneurysms with high grade of Hunt-Hess scale.

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## Prevention and interference of atherosclerotic heart disease - New insights and directions

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We have previously observed that the levels of blood cholesterol and sugar containing lipids called glycosphingolipids (GSL) rise and fall in tandem upon plasma exchange therapy in patients homozygous for familial hypercholesterolemia (FH). Moreover, cultured skin fibroblasts from LDL receptor negative FH subjects were unable to metabolize GSL/Lactosylceramide-associated with LDL efficiently compared to normal fibroblasts having functional LDL receptors. Such findings rationalized our approach to inhibit GSL synthesis as a novel approach to mitigate atherosclerotic heart disease. In a series of experiments, recently described in the journal Circulation, we have identified and halted the action of GSL and cholesterol. Using an inhibitor of GSL synthesis we could block abnormal cholesterol production, transport, breakdown and improve bile acid production successfully thus preventing and interfering atherosclerotic heart disease in a poE-/- mice and normal rabbits fed a western diet, rich in cholesterol and triglycerides. In particular, the blood levels of oxidized LDL, LDL cholesterol and triglycerides were decreased and the level of HDL cholesterol was increased. Treatment markedly decreased arterial calcification and vascular wall stiffness. Recently, we have remarkably improved on the efficacy of the GSL inhibitor to prevent and interfere with atherosclerotic heart disease by way of encapsulating it within a biodegradable polymer which allows rapid absorption in the gut and slow release of drug over a period of days instead of hours. Thus inhibition of GSL synthesis is useful to ameliorate atherosclerotic heart disease and GSL synthesis inhibition an alternative to the use of family of statins and PCSK-9 antibody.

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