

is indicated only in cases with partial obstruction, surgical treatment seems to be essentially prophylactic. If so, thrombolytic treatment seems to be preferable. In fact, several cases in this group had remarkable improvement with thrombolytic treatment. Therefore, combined use of thrombolytin with surgery is considered to be ideal for the treatment of carotico-vertebral-cerebral thrombosis.

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### S37. Indication of Carotid Artery Ligation in the Treatment of Cerebral Aneurysms

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Direct intracranial attack of cerebral aneurysm under hypothermia is a logical and fashionable method of treatment but not without involved risk of death and disability, particularly in the aged. Carotid artery occlusion, on the other hand, is a simpler safer indirect approach, yet it gives considerably good protection against recurrent hemorrhage for aneurysms of the internal carotid near the posterior communicating artery junction. To avoid cerebral ischemia we adopted the intermittent ligation method to ligate the common carotid artery in two stages, semi-closure in the first and total closure in the second with an interval of 2 weeks. Six such cases underwent this treatment successfully and are living normal life after 4 months to 2 $\frac{1}{4}$  years. One of them with a huge aneurysm did not require second operation, because it disappeared after the first semi-closure, confirming the rule of "Volume-orifice ratio" and the effectiveness of subtotal closure advocated by some authors. We feel, however, that aneurysms of the anterior cerebral and anterior communicating artery should be treated intracranially.

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### S38. Incomplete Closure of the Internal Carotid Artery as Treatment of the Cerebral Aneurysm

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However the operation techniques and the instrument for direct attack of the intracranial aneurysm have been great progressed, the ligation of the internal