

IMPACT OF SERIAL THERAPEUTIC LUMBAR PUNCTURE ON SHUNT REQUIREMENT IN PATIENTS WITH ANEURYSMAL SUBARACHNOID HEMORRHAGE: SHORT TERM RESULT

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Hydrocephalus is a common complication after aneurysmal subarachnoid hemorrhage. In the University of Hong Kong Shenzhen hospital (HKU-SZH), we routinely perform serial lumbar puncture to reduce the rate of hydrocephalus and vasospasm. In Queen Mary Hospital (QMH), lumbar puncture is not routinely performed on patients with subarachnoid hemorrhage. We present here our results on patients managed in our unit between 2014 and 2015.

METHOD: We retrospectively compare shunting requirements of two independent cohorts of patients suffering from subarachnoid hemorrhage. For the HKU-SZH cohort, after securing the aneurysm, serial lumbar punctures were performed until the patient's headache has resolved and CSF no longer heavily blood stained. For the QMH cohort, lumbar puncture is not routinely performed after the aneurysm is secured. The indication for shunting in both cohorts is patient became symptomatic with headache or depressed consciousness and progressive dilatation of ventricles on serial CT scan.

RESULTS: For the HKU-SZH group, from Jan 2014 to Oct 2015 we treated 15 patients with subarachnoid hemorrhage from ruptured aneurysms. Only 1 patient required shunt placement. For the similar group of patient at QMH during the same period, 5 patients needed shunting operation.

CONCLUSION: This result points to a potential benefit in doing serial lumbar puncture in patients with subarachnoid hemorrhage. However the patient number was small and the follow up time was short. This small study would lead us to conduct a prospective study on lumbar puncture after subarachnoid hemorrhage.