Title	The Hong Kong Neurosurgical Society prospective observational study on outcome of cerebrospinal fluid diversion procedures: an interim report
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THE HONG KONG NEUROSURGICAL SOCIETY PROSPECTIVE OBSERVATIONAL STUDY ON OUTCOME OF CEREBROSPINAL FLUID DIVERSION PROCEDURES: AN INTERIM REPORT

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OBJECTIVE: Cerebrospinal fluid diversion in the form of ventricular drains and permanent internal shunts are the most common neurosurgical procedures. Both are known to be associated with complications which could result in significant morbidities and mortalities. The Hong Kong Neurosurgical Society supported the present study to investigate the local rates of infection and other early procedure-related complications in CSF diversion procedures; and to identify risk factors of such complications.

METHODS: This is a prospective multi-center observational cohort study involving all neurosurgical units under the Hospital Authority. Patients undergoing CSF diversion surgeries from January 2015 are included. Demographic data, clinical and surgical information, outcome and complications are prospectively collected. Risk factor analysis was performed. The interim results of patients already completed follow up will be reported.

RESULTS: 305 CSF diversion procedures from 4 centers were included (250 EVDs and 55 shunts). The most common indications were stroke (55.4%), intracranial tumor (20.3%) and head injury (14.8%). 17.7% were revision of existing ventricular drains, and 39.3% had concurrent craniotomy. Conventional catheters were used in 47.5% of procedures, antibiotic-impregnated catheters in 41.0%, and silverbearing catheters in 11.5%. The mean duration each EVD was kept in-situ was 8 days. The overall complication rate was 7.7%, including 8 cases of infection (2.6%). Analysis of risk factors for complications will be performed and reported.

CONCLUSION: We report on the interim results of a prospective observational study of CSF diversion procedures in Hong Kong. The complication rate is comparable to international cohorts. The full results and risk factor identification will be available after completion of the whole study period.