

Poster presentation

Best clinical indicators predictive of blocked ventriculoperitoneal/ventriculoatrial shunts in adults

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from 50th Annual Meeting of the Society for Research into Hydrocephalus and Spina Bifida
Cambridge, UK. 30 August – 2 September 2006

Published: 21 December 2006

Cerebrospinal Fluid Research 2006, **3**(Suppl 1):S50 doi:10.1186/1743-8454-3-S1-S50

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Background

Complications of cerebral spinal fluid shunts are common, the commonest complication being shunt blockage. The aim of this study is to determine which symptoms are the best clinical indicators predictive of a blocked ventriculoperitoneal or ventriculoatrial shunt in adults.

Materials and methods

Data was collected retrospectively over a 40-month period from patient admissions with suspected shunt blockage. The symptomatology and computerised tomography (CT) findings were compared between patients who had confirmed shunt block and those who had a normally functioning shunt. Odds ratios with 95% confidence intervals were then calculated for the common presenting symptoms. Subjects included in the study were all patients aged 16 and over, referred to the department of neurosurgery with suspected shunt blockage. This comprised of 19 patients and 45 admissions.

Results

There were 12 admissions with confirmed shunt blockage. Common symptoms were headache, vomiting, drowsiness and visual disturbance. Between the admissions with and without shunt blockage, drowsiness had the highest odds ratio of 19.25 (95% confidence interval 2.636 to 140.6, $p < 0.005$). As a combination of symptoms headache with drowsiness had the highest odds ratio of 91.36 (95% confidence intervals of 4.543 to 1837, $p < 0.005$).

Conclusion

Headache with drowsiness is by far the best clinical indicator of a blocked shunt. Other combinations of symptoms are less predictive. All patients with suspected shunt block should undergo a period of observation and a CT scan to assess ventricular size.