

# Management of Pregnancy In A Patient With A Ventriculoperitoneal Shunt For Congenital Hydrocephalus: A Case Report

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## Background

There are increasing numbers of women with congenital hydrocephalus surviving to childbearing age. This is secondary to improvements in diagnosis and management. The mainstay of management currently is with a ventriculoperitoneal (VP) shunt, which is used to divert cerebrospinal fluid and thus decrease intracranial pressure.

## Case

We present the case of a 26 year old primiparous woman with a VP shunt secondary to congenital hydrocephalus. The patient also had a history of epilepsy on Keppra 500mg, mild cerebral palsy with right arm deficit, 3 previous cerebral venous sinus thromboses in 2013 for which she was commenced on antenatal Clexane, and a history of Steven Johnson Syndrome. The patient was identified at booking to be high risk, and was followed up in the risk associated pregnancy clinic antenatally. Additionally she was reviewed by her neurosurgeon pre-pregnancy and throughout pregnancy to ensure stability and patency of her VP shunt. Furthermore, she was also reviewed by neurology and haematology, to guide management on her other comorbidities.



The patient was cleared by the multidisciplinary team for a vaginal delivery and progressed to a postdates induction at 40+10 with a foley's catheter. Throughout labour the patient was monitored closely. There were no intrapartum issues and she progressed to a normal vaginal birth of a healthy baby. Postnatally she was febrile, and was treated for likely endometritis. There were no other issues postnatally.

## Discussion

The antenatal, and intrapartum period in particular, increase intraabdominal pressure and may result in increased intracranial pressure or shunt failure. These may present with the patient having a chronic headache, nausea, vomiting, irritability, vision changes, behavioural change, neurological symptoms or a decreased level of consciousness. Ensuring stability of hydrocephalus prior to pregnancy and ongoing review of shunt function in the antenatal and intrapartum periods is paramount to enable maternal and thus fetal safety. This case study demonstrates effective ongoing multidisciplinary team review and management of congenital hydrocephalus in pregnancy.