

# Chronic Subdural Hematoma In A Case Of Ventriculoperitoneal Shunt

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## Abstract

The commonest treatment of hydrocephalus is VP shunt. The procedure has various acute and delayed complications like intracerebral hematoma, infection, shunt malfunction and intra abdominal complications. We report a case of chronic subdural hematoma in a case of right frontal oligodendroglioma who underwent postoperative VP shunting for hydrocephalus. The hematoma was evacuated and the shunt tied with no complications. Although rare, this complication must be thought of in all cases of VP shunt who present with deteriorating conscious level.

## CASE REPORT

A 40-year old male was operated in 2006 for a right frontal oligodendroglioma. He underwent Ventriculoperitoneal (VP) shunting due to secondary postoperative hydrocephalus. This time he presented in late June 2009 with weakness of the left half of the body and confusion for two weeks. There was no history of fever, seizure and trauma. On examination his Glasgow Coma Score was 13 and there was weakness on the left side of Medical Research Council (MRC) grade 4/5. The serum electrolytes, renal function, coagulation profile and blood counts were normal. Computed Tomogram (CT) revealed a left sided chronic subdural hematoma with normally placed VP shunt. There was mass effect to the right and the ventricle was smaller on the ipsilateral side (Figure 1).

## Figure 1

Fig.1. CT scan showing the normal VP shunt with right sided chronic subdural hematoma (White arrows).



There was no tumor recurrence. Emergency evacuation of the hematoma and closed drainage was done along with tying of the distal VP shunt catheter at the mid thorax level. Postoperatively the GCS improved to 15 on the next day with the return of power to normal at the time of discharge at seven days. Repeat scan at month time with removal of the shunt is planned if there are no signs of hydrocephalus.

## **DISCUSSION**

VP shunt for hydrocephalus is a common neurosurgical procedure. The complications of this procedure can be acute or delayed. Acute complications include intracerebral hematoma and delayed comprise of shunt malfunction, infection, bowel or bladder perforation and even extrusion of the shunt through the anus.<sup>1-4</sup> The cause for distant VP shunt tract related hematoma is uncommon in cases with no history of trauma. One possible reason is the over functioning of the shunt with brain shift and development of subdural collection.

There are very few cases with chronic subdural hematoma reported in the literature. Although benign in nature one must keep this complication in sight to avoid further morbidity and mortality. Use of the newer programmable

shunt can help to reduce the problem of over functioning VP shunt and its related complications.

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