

## SHUNT FAILURE IN ADULT TRANSITION PATIENT ; a case series and literature review

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### Introduction

Hydrocephalus is a notorious neurosurgical disease that can lead to mortality and morbidity if not treated correctly. One of the common treatment for this disease is shut insertion. Thus, a patient with a paediatric onset hydrocephalus will remain shunt dependent during adulthood. Furthermore, with advancement of health care, many of these patients managed to reach adulthood and has a good quality of life. This series aim to present on 5 cases of shunt failure which initially inserted for more than 10 years ago in our centre, the management and the literature review.

### Methods

There are 5 cases of shunt failure reported in adult transition patients in our department in Sarawak General Hospital for the past 2 years. These patients had their VP shunt inserted during childhood; majority due to congenital hydrocephalus. All of them lost in followup but came back to hospital due to symptoms of raised intracranial pressure; reduce consciousness, headache and vomiting. One of them came back for status epilepticus. Repeated scans shows dilated ventricles with gross hydrocephalus. Shunt revision done for all the patients. 2 of them came back for recurrent shunt failure with one of them subsequently passed away due to shunt failure with status epilepticus.

### Results

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### Conclusions

As the survival of pediatric patients with hydrocephalus continues to improve, these patients transitioning to adults require ever-increasing neurosurgical interventions. Most adult-transition patients with paediatrics onset hydrocephalus experience multiple shunt failures requiring revisions. Endoscopic neurosurgery such as ETV has been used as an alternative to shunt insertion. However, ETV itself has high failure rate in young patients with it’s own array of risk and complications. More studies need to be done in improving the life span of shunt.

### Learning Objectives

- 1) Management of adult transition patient with paediatrics onset hydrocephalus can be challenging
- 2) Alternative method need to be considered in managing this kind of cases
- 3) With improvement of healthcare and increase survival of paediatrics onset hydrocephalus patients, more study need to be done in improving the life span of shunt