

**FP116****The use of subcutaneous reservoirs to prevent intraventricular stent migration**

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**Introduction:** Intraventricular stents have been used for a variety of neurosurgical conditions. They are usually silastic tubes such as those employed in external ventricular drains and shunts. Their purpose is to create a communication between ventricular compartments that have pathologically lost their communication. Stent migration is a recognised complication and various techniques have been used to try to prevent this. We describe our technique of using a long stent attached to a subcutaneous reservoir in 7 children.

**Methods:** We searched our surgical database for patients who had undergone placement of an intraventricular stent and analysed our case series. We had excluded those in whom the ventricular catheter of a ventriculoperitoneal shunt was used as a stent.

**Results:** We identified 7 children (the youngest 2 days old and the eldest 13.24 years) between November 2010 and May 2013. Three had an encysted 4<sup>th</sup> ventricle, 1 had an encysted lateral ventricle, 2 had arachnoid cysts and 1 had a porencephalic cyst. They all had ventricular catheters secured to a subcutaneous reservoir. The use of reservoirs stopped stent migration in 6 out of the 7 patients. In the single patient (arachnoid cyst) in whom the stent was no longer in the desired position we believe that the fenestration and stent allowed decompression of the cyst which then resulted in a significant decrease in the size of the cyst which migrated away from the catheter rather than the catheter itself migrating out of the cyst. The fenestration then closed off as the stent was no longer keeping it patent and the cyst enlarged pushing the catheter out of its way.

**Conclusions:** In our experience subcutaneous reservoirs secured to intraventricular stents provided a safe and effective method of preventing stent migration.