

## FP109

**Neuroendoscopic management in patients with Dandy-Walker malformation**Yusuf Ersahin*Ege University, Izmir, Turkey*

**Introduction:** Dandy-Walker malformation (DWM) accounts for approximately 5-10% of congenital hydrocephalus patients and consists of 3 major abnormalities: (1) complete or partial agenesis of vermis, (2) cystic dilatation of the fourth ventricle, and (3) hydrocephalus.

Treatment modalities have varied throughout the years. Endoscopic third ventriculostomy (ETV) has been being used in patients with DWM to treat hydrocephalus. We reviewed the patient with DWM who had undergone neuroendoscopic interventions.

**Material and Method:** The patients with DWM who had undergone neuroendoscopic procedures between 2000 and 2013 were reviewed. ETV and or aqueductal stent were performed by using a rigid neuroendoscope. The cases of DWM who had undergone neuroendoscopic surgery in the literature were reviewed and analyzed.

**Results:** There were 10 patients (6 girls and 4 boys) with DWM ranging in age from 2 months to 29 years (mean 6.6 months). ETV was performed in 8 patients and aqueductal stent in addition to ETV in 2 patients. Neuroendoscopic intervention was carried out in 4 patients at the time of shunt malfunction. Of 10 patients, 8 became shunt free.

One hundred and twenty six cases were analyzed. ETV, ETV plus Choroid plexus cauterization (CPS) and ETV plus aqueductal stent were performed in 83, 38 and 5 patients, respectively. Overall success rate was 76%. Type of endoscope, gender, primary or secondary ETV and mode of neuroendoscopic procedure did not vary significantly. However the success rate in the patients older 1 year of age was significantly better than those younger than 1 year of age ( $P=0.026$ ).

**Conclusions:** ETV seems effective in patients with DWM. Although the literature review supports this idea, there are some flaws in this analysis. A randomized study is needed to prove the effectiveness of ETV in the management of DWM.