

**OP24****Stringent indication criteria reduced frequency of ventriculoperitoneal shunt surgeries in myelomeningocele patients**

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**Introduction:** Ventriculoperitoneal shunt (VPS) in myelomeningocele (MMC) patients has been reported as 80 - 90% frequency, and mortality and morbidity of the patients are high with shunt-related complications. Therefore, efforts should be made to avoid it as much as possible. We adopted new stringent indication criteria in order to minimize VPS in the patients with MMC, and clinical factors are analyzed retrospectively.

**Method:** We newly started strict indications for VPS in 2013, and frequency of patients who underwent VPS was compared with the past cases in the last two years. This new indications were primarily based on clinical symptoms suggesting elevation of intracranial pressure, such as poor feeding, vomiting, apnea and bradycardia. Continuous increases of head circumferences or progressive ventriculomegaly are also considered as important indications, but no surgeries were performed only for stable ventriculomegaly. Outcome and indications were analyzed between two groups before and after the new indication. The other clinical factors (gender, gestational age, Apgar scores, weight, head circumference (HC), conditions of anterior fontanel, levels of MMC, extent of tonsillar herniation) were also analyzed.

**Results:** We had 16 patients during three years between 2011 and 2013. Six were treated with new strict indication in 2013, and 10 with classical independent approach between 2011 and 2012. 70% underwent VPS in the old indication, whereas 33% with new indication.

Main decision reason was persistent ventriculomegaly in the past (71%), but no patient underwent it in the new indications.

Desaturation and apnea (50%), increasing HC (50%) were reasons for decision making of VPS with the new indication. The other factors were not the main reasons for VPS.

The other clinical factors were not different significantly.

**Conclusion:** We successfully reduced frequency of VPS in the MMC patients with new indication criteria. Clinical symptoms and progressive enlargement of the ventricles are important factors to achieve it.