

Neurosurgery Abstracts

Title: NEURAL TUBE DEFECTS; SURGICAL APPROACH IN SLOVAKIA

Presenting Author: František Horn, Dpt.Pediatric Surgery, University Children Hospital, Bratislava, Slovakia

Additional Authors:

- Martin Smrek, Dpt.Pediatric Surgery, University Children Hospital, Bratislava, Slovakia
- Terézia Drdulová, Slovak Association for Spina bifida and Hydrocephalus, Smolenice, Slovakia
- Lucia Abová, Dpt.Pediatrics, University Children Hospital, Bratislava, Slovakia

Background: Management of child with neural tube defect (NTD) starts with exact classification of the defect to cranial, caudal or combined type and then to open or closed. Surgical approach is crucial for the patient prognosis.

Method: The study is retrospective analysis of patients with caudal NTD treated at the University Children Hospital in Bratislava. We divided our patients into two groups - with open NTD (A) and closed NTD (B). We compare the management in two different periods: 1988 – 1997 (I.) and 1998 – 2007 (II.). In both groups (A and B) we focused on timing of surgery, complications (infection, secondary tethered cord) and management of hydrocephalus. The group A in the period I. consists of 106 patients, in the period II. – 57 patients. The group B: period I. – 48 patients and period II. – 23 patients.

Results: In the I.period, group A, only 92 patients were operated in the first month of age. 15 patients were operated later and 14 patients were discharged without surgery. 26.4% of patients were not operated in time. After the closure of the defect, wound infection was presented in 28.26% of patients and secondary tethered cord in 6 patients (6.52%). Hydrocephalus was managed with shunt in 36 patients (VP in 12 and VA in 24). In the period II, only 1 child was not operated on and 3 children were at the time of surgery older than 1 month. Secondary tethered cord was cause of reoperation in 2 children. Hydrocephalus was managed with VP shunt in 39 patients, 1 neuroendoscopy was performed and 17 patients are without shunt dependence. In the group B, I. and also II. period we found, that diastematomyelia is usually combined malformation and together with spinal lipomas is the worse malformation and need several reoperations. There was no hydrocephalus in B group.

Conclusion: Operation of patient with open NTD needs to be performed within the first 24 hours of life and together with in time performed surgery of hydrocephalus influenced the future of a child. Timing of surgery in patient with closed NTD depends on type of malformation and age of a child. Close cooperation with Association of parents and their children (SASBAH) is very helpful. In our institution, patient is discharged from the hospital to SASBAH.