Cerebrospinal Fluid Research

Poster presentation

Open Access

Ambulation in children and adolescents with spina bifida
Marcus Pauly and Reinhold Cremer*

Address: Children's Hospital, Amsterdamer Str. 59, 50735 Cologne, Germany

Email: Reinhold Cremer* - CremerR@kliniken-koeln.de

* Corresponding author

Background
Ambulation is the specific skill of biped walking, supported by braces and walking aids in patients with spina bifida. [according to: Shurtleff D. (Editor) Myelodysplasias and Extrophies (1986)]. In the last years our therapeutic goal was to enforce ambulation as early and as long as possible in these patients. In the study presented we wanted to look at the results in the children and adolescents of the outpatient clinic for spina bifida of the Cologne Children's Hospital.

Materials and methods
We collected clinical data and information about ambulation of 90 spina bifida patients (47% female, 53% male, age 1.4 to 27 years) using a questionnaire. Patients were grouped by their walking distances according to Hoffer [Hoffer MM et al; J Bone Joint Surg Am 55: 137 (1973)]. Statistical analysis was performed using SPSS™

Results
See Table 1. Walking distance improved in 39%, worsened in 24% and stayed equal in 37% of the patients.

Table 1: Hoffer Criteria correlated with the level of paralysis (Pearson correlation, p = 0.01).

Ambulation Criteria (Hoffer)	Percent
Community Walker	42
Household Walker	16
Exercise Walker	16
Non-Walker	27

Conclusion
A multidisciplinary care in a specialised institution can achieve a high level of ambulation in spina bifida patients and maintain this skill over a long period of time in a majority of patients. Data will be used for pre- and postnatal counseling of parents.