

Oral presentation

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## Effectiveness and independence - different treatments of neurogenic bowel dysfunction in children with myelomeningocele

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from 53rd Annual Meeting of the Society for Research into Hydrocephalus and Spina Bifida  
Belfast, UK. 24-27 June 2009

Published: 27 November 2009

*Cerebrospinal Fluid Research* 2009, **6**(Suppl 2):S31 doi:10.1186/1743-8454-6-S2-S31

This abstract is available from: <http://www.cerebrospinalfluidresearch.com/content/6/S2/S31>

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### Background

Constipation is a major problem in children with myelomeningocele and may result in a range of problems from impaired growth to faecal incontinence. Treatment regimes differ between countries and comparisons between the different methods are rare. Apart from effectiveness aspects as time needed and factors related to possibilities of independence are also important. Dominating treatment regimes are oral laxatives, transrectal irrigation (TRI) and different kinds of irrigation via appendicostomy.

### Materials and methods

A questionnaire was sent to all children with myelomeningocele aged 7-16 years living in the south eastern health region and the region of Skåne in Sweden (n = 96) and in the south and east regions of Norway (n = 84). The questionnaire covered several areas including, bowel and bladder emptying, urinary infections and independence at the toilet and had separate parts for the child and parents. The quality of life instrument PedsQL<sup>®</sup> was also used. A total of 180 questionnaires were sent out and 106 (59%) answers were received. Distribution between genders was equal. Analysis of drop-outs showed no significant differences according to age, gender and regime of bowel emptying.

### Results

Distribution according to regime of bowel emptying was: spontaneous 18 (17%), TRI 52 (49%), appendicostomy 32 (30%) and other regimes 4 (4%). Of the 106 children 13 used some oral treatment to improve bowel function in most cases combined with one of the regimes above. Children using appendicostomy as well as their parents reported higher satisfaction compared to children using TRI. On the other hand parents to children using appendicostomy reported longer time on toilet compared to those of children using TRI. Faecal incontinence was less frequent in the appendicostomy group but the need of support to perform the procedure was the same. Children using TRI did not report different quality of life according to PedsQL<sup>®</sup> than those with appendicostomy. The children with myelomeningocele reported lower quality of life than the normal population.

### Conclusion

Transrectal and appendicostomal irrigation are the dominating methods of bowel treatment in children with myelomeningocele in at least parts of Sweden and Norway. Higher parent and child satisfaction was associated with use of appendicostomy, compared to TRI, but there was no significant difference in quality of life. Faecal incontinence was significantly less frequent in the appendicostomy group, but it takes longer time for this group to empty the bowel. Furthermore, the parents reported no

difference in the need of support between the two methods of bowel emptying. Families should be included in choice of bowel regime.

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