

Oral presentation

## Spondylolisthesis in myelomeningocele

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### Background

The absence of important posterior elements in myelomeningocele (MMC) seems to justify a higher prevalence of spondylolisthesis among these patients regarding the normal population. The aim of this study was to analyze the prevalence and the degree of slippage of spondylolisthesis in myelomeningocele patients.

and hyperlordosis were related with the presence of spondylolisthesis.

### Patients and methods

One hundred and thirty patients with myelomeningocele were randomly chosen from a roster of >500 patients with myelomeningocele followed at a multidisciplinary spina bifida unit in a tertiary university public hospital. A cross-sectional study was done collecting data from patient records and X-rays archives. X-rays measurements of sacral slope and grade of listhesis were standardized with Auto-Cad System. To study relationships among the variables, the Chi-squared, ANOVA tests were applied.

### Results

The mean age of this series was 24 years (range 2–53). 64 were male and 69 were female. 71,4% of patients had mid-lumbar, low-lumbar or sacral neurological levels. 16% had spondylolisthesis. The mean slippage was 21.6% (range 9–44), being 68,2% grade I and the remaining 31,8% grade II. The more frequent level for slippage was L5-S1. All the patients with spondylolisthesis were ambulators. The risk of spondylolisthesis was related with ambulation ( $p = 0.012$ ). Ambulatory type ( $p = 0.035$ ), functional ambulation type ( $p = 0.007$ ) and lumbar hyperlordosis ( $p = 0.018$ ) were also statistically related with the presence of spondylolisthesis.

### Conclusion

Prevalence of spondylolisthesis in MMC is greater than in normal population (16% vs 5.8%). Gait related variables