

Oral presentation

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## Latex sensitisation in hydrocephalic patients with and without spina bifida

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### Background

Natural rubber latex (NRL) sensitisation, often with serious symptoms of latex allergy, is a widespread problem of patients with spina bifida. With genetic factors not being well characterized till now, repeated surgeries beginning soon after birth are the best-known risk factor. Operations of the shunting devices mainly contribute to the number of surgeries in spina bifida patients. There has been much less investigation into the prevalence of NRL-sensitisation of hydrocephalic patients without spina bifida.

### Materials and methods

In this study the risk of NRL-sensitisation of hydrocephalic patients with and without spina bifida is compared to give recommendations for NRL-prophylaxis. The sera of a group of spina bifida patients without ( $n = 49$ ) or with shunted hydrocephalus ( $n = 123$ ) and a group of 34 hydrocephalic patients without spina bifida were tested for specific IgE antibodies against NRL by ImmunoCAP system. The number of surgeries and symptoms of NRL

allergy were taken from the medical history and a questionnaire.

### Results

See Table 1.

In all groups the prevalence of sensitisation against NRL increased with the number of surgeries.

### Conclusion

Due to repeated surgeries a remarkable sensitization against NRL proteins in patients with shunted hydrocephalus without spina bifida has to be considered. The risk increases with the number of surgeries like in spina bifida patients and other congenital malformations. These patients should be tested for specific IgE by blood or skin test before surgeries, to establish prophylactic measures, especially a latex-free operating theatre.

Table 1:

Group	Patients n	NRL sensitized	NRL allergic	Number of surgeries, mean/maximum
Spina bifida/No shunt	49	11/22.4%* <sup>1</sup>	4/8.2% n.s.	2.6/9* <sup>1</sup>
Spina bifida/with shunt	123	63/51%	17/13.8%	7.0/30
Shunt/No Spina bif.	34	6/17.7%* <sup>1</sup>	2/5.8% n.s.	5.7/12 n.s.

\*<sup>1</sup> Chi square test,  $p = 0.01$ , n.s. = not significant.