

European Respiratory Society Annual Congress 2012

Abstract Number: 7083
Publication Number: P4110

Abstract Group: 7.4. Paediatric Respiratory Infection and Immunology

Keyword 1: Viruses **Keyword 2:** Infants **Keyword 3:** Wheezing

Title: Quality of life after acute bronchiolitis in infancy

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Body: Acute bronchiolitis, parental allergic disease, atopic eczema, male gender and parental stress are risk factors for asthma development. Quality of life (QoL) may be reduced in children with allergic disease, but prospective studies on risk factors for reduced QoL in infants are lacking. Aim: Are asthma risk factors, apart from acute bronchiolitis associated with QoL nine months after hospitalization for bronchiolitis? Methods: The Infant Toddler Quality of Life Questionnaire (ITQOL(TM)) was sent to parents of 405 hospitalised infants included in a randomized clinical trial testing the efficacy of racemic adrenaline, the Bronchiolitis All SE-study. The 13 domains were analyzed by multiple linear regression including age at hospitalization, gender, atopic eczema, parental asthma and parental allergic rhinitis (risk factors). Results: Risk factors were similar for the 209 infants (mean age 13.2 months) who did and the 196 who did not return the questionnaire. Reduced QoL was found for atopic eczema (Table 1), parental asthma and female gender (four, two and one domain, respectively), but increased in children with parental allergic rhinitis (one domain).

Effect on atopic eczema on QoL adjusted for asthma risk factors

Atopic eczema associated with	Change in QoL (95% CI)	p-values
Overall health	-9.8 (-16.4,-3.1)	0.004
Growth and development	-4.5 (-8.1,-1.0)	0.01
Discomfort	-14.5(-25.7,-3.2)	0.01
Getting along	-12.5(-18.7,-6.2)	< 0.001

Multiple regression of the risk factors, results of atopic eczema

Age of hospitalization did not influence any scores. Conclusion: QoL nine months after hospitalization for

acute bronchiolitis was negatively associated with atopic eczema, parental asthma and female gender.