

# Asthma in pregnancy

## Asma in gravidanza

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In their paper entitled 'Asthma in pregnancy- from immunology to clinical management' Lilia Tamási et al. [1] (pag. 259-263) discuss the effect of asthma on pregnancy and vice versa. As it is generally accepted, asthma improves during pregnancy in about one-third, remains the same in another one-third, and worsens in one-third of pregnant women. Asthma morbidity during pregnancy and obesity is associated with an increased risk of asthma exacerbations during pregnancy. Preeclampsia, gestational diabetes, intrauterine fetal retardation and fetal death are some of the adverse perinatal outcomes associated with the above condition. The immunological changes in asthmatic pregnancy are not well established. Pregnancy-induced attenuation of allergic responses is possible. Pregnant women with well controlled and adequately treated asthma do not develop maternal or fetal complications.

The onset of asthma is most common in the first year of life, when it is difficult to distinguish it from other wheezing syndromes. Although in many children wheezing is transient, those who wheeze in the first 3 years of life have an increased risk of asthma at the age of 5 to 7 years. The high incidence of asthma in early life has focused attention on environmental factors such as allergen exposure and infections that occur before and soon after birth as potential causes. It is also possible that factors that interfere with normal pregnancy create an intrauterine cytokine environment favoring the development of allergy in those

with a genetic predisposition.

The prevalence of asthma among pregnant females is also increasing. Recent estimates in the USA suggest that 3.7–8.4% of pregnant females had asthma in 1997–2001, an increase from 3.2% in 1988–1994.

In addition to genetic influences, intrauterine and labor conditions are determinants of asthma. Exposure to both upper and lower respiratory tract infections increases the risk. There is a strong effect of family history of asthma and allergic disorders on asthma risk. Childhood asthma is more strongly associated with asthma in siblings than in mothers, presumably because siblings could have inherited an asthmatic predisposition from the father as well as the mother. Low gestational age is an additional risk factor for asthma, independent of birth weight. Since maternal smoking is associated with an increased risk of both low birth weight and premature birth, maternal smoking may underlie the association found between these factors and asthma.

Certain conditions during pregnancy and labor further increase the risk of asthma. Maternal age inversely relates to wheezing and lower respiratory illness. This may reflect a greater vulnerability of young mothers and higher exposures in young mothers to risk factors such as smoking. Asthma risk is increased with younger maternal age. Children of younger mothers may be more likely to have upper and lower respiratory infections, accounting for these findings.

### References

1. Tamási L, Bohács A, Horváth I, Losonczy G. Asthma in pregnancy – from immunology to clinical management. *Multidisciplinary Respiratory Medicine* 2010;5:259-263.
2. Firoozi F, Lemièrre C, Beauchesne MF, Perreault S, Forget A, Blais L. Impact of maternal asthma on perinatal outcomes. *Eur Respir J* 2010 Jun 18. Epub ahead of print.
3. Dombrowski MP, Schatz M. Asthma in pregnancy. *Clin Obstet Gynecol* 2010;53:301-310.
4. Belanger K, Hellenbrand ME, Holford TR, Bracken M. Effect of pregnancy on maternal asthma symptoms and medication use. *Obstet Gynecol* 2010;115:559-567.

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