The Relationship Between Childhood Medication Use and The development Of Allergic Sensitization Or Asthma At Age 6 Years In A High-risk Birth Cohort

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RATIONALE: Findings regarding the association between early use of antibiotics and their effects on the development of childhood asthma are inconsistent. Using data from the Childhood Origins of ASThma (COAST) study, we examined the relationship between antibiotics and other medications given to children during the first year of life and the development of asthma at age 6 years.

METHODS: 259 children enrolled in COAST were evaluated for asthma at age 6 years. Study records and primary care records documented administration of medications and were evaluated relative to illnesses and the subsequent development of allergic sensitization or asthma.

RESULTS: There was no significant relationship between the use of antibiotics in the first year of life and asthma at age 6 years (31% vs. 23%, OR – 1.5, p=0.18) or positive skin prick tests (50% vs. 49%, OR – 1.0 p = 0.89). However, there was a significant association between the use of ibuprofen (34% vs. 21%, R = 1.9, p = 0.03) and the use of MD prescribed antihistamines/decongestants (50% vs. 24%, OR = 3.1, p = 0.001) during the first year of life and asthma at age 6 years.

CONCLUSIONS: These data do not support the hypotheses that antibiotic use early in life increases the risk for asthma or allergic sensitization. However, the use of ibuprofen and/or antihistamines/decongestants early in life may be associated with increased risk of asthma.

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