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Low-fat yoghurt intake in pregnancy associated with increased child asthma and allergic rhinitis risk: A prospective cohort study

E. Maslova, T. I. Halldorsson, M. Strom, S. F. Olsen (Boston, United States Of America; Copenhagen, Denmark; Reykjavik, Iceland)

Background: Dairy products are important sources of micronutrients, fatty acids, and probiotics that could modify the risk of child asthma and allergy development.

Objective: To examine associations of dairy intake during pregnancy with child asthma and allergic rhinitis (AR) at 7 years in the Danish National Birth Cohort.

Methods: Data on milk and yoghurt consumption was collected in mid-pregnancy using a validated FFQ (N=61,912). We assessed asthma and AR through questionnaires and registry linkages. Current asthma was defined as self-reported asthma diagnosis and wheeze in the past 12 months. We conducted multiple logistic regression and report here odds ratios with 95% CI.

Results: At 7 years 5.9% (N=2,316/39,059) of children had registered life-time asthma diagnosis and 4.2% (N=1,574/37,347) reported current asthma. Life-time AR diagnosis was 0.5% (N=191/39,059) using the registry and 4.9% (N=1,887/38,763) by self-report. Total milk intake was inversely related to current asthma risk (>5 glasses/d vs. 0 glasses/d: 0.78, 95% CI: 0.61, 0.98). For yoghurt, children of women who ate low-fat yoghurt (with fruit) >=1 time/day had 1.61 (95% CI: 1.22, 2.12) greater odds of a registry-based asthma diagnosis compared to children of women reporting no intake. They were also more likely to have a registry-based AR diagnosis (2.82, 95% CI: 1.44, 5.53) and to report current asthma (1.62, 95% CI: 1.17, 2.24).

Conclusion: Low-fat yoghurt intake was directly related to increased risk of both child asthma and AR, while total milk intake appeared to be protective. Non-fat related nutrient components in yoghurt may be mediating this increase in risk.