

BIRTH WEIGHT, GESTATIONAL AGE, AND THE RISK OF INFANTILE COLIC - THE DANISH NATIONAL BIRTH COHORT

I. Milidou^{1,2}, C. Søndergaard¹, M.S. Jensen^{2,3}, J. Olsen⁴, T.B. Henriksen²

¹*Department of Pediatrics, Herning Regional Hospital, Herning*, ²*Perinatal Epidemiology Research Unit*,
³*Department of Occupational Medicine, Aarhus University Hospital*, ⁴*Institute of Public Health, Department of Epidemiology, Aarhus University, Aarhus, Denmark*

Background and aims: A few studies associate infantile colic (IC) with low birth weight; but most IC studies excluded infants born preterm or with low BW.

We aimed to assess the relation between birth weight (BW) and gestational age (GA), and IC.

Methods: The study population consisted of 63,883 singleton pregnancies enrolled in the Danish National Birth Cohort (1997-2002). Computer-assisted interviews of the mother during pregnancy provided information on possible confounders, such as maternal smoking habits, age, and parity. BW and GA data was retrieved from the Danish Medical Birth Registry. IC in the offspring was assessed by a similar maternal interview six months post partum, based on Wessel's criteria.

Results: A total of 5,259 (8.3 %) fulfilled the criteria for IC. Eight BW groups were created (500 grams interval). We observed a dose-response like increase in ORs for IC with lower BW, which remained when restricting to full term born. The strongest association was among the smaller infants (BW < 2,000 grams): OR = 1.7 [CI: 1.3; 2.2], using BW of 3,500-4,000 grams as reference.

We furthermore created seven groups according to GA and used children born in gestational week 40 as reference. Again, an inverse dose-dependent relation was observed, with the highest OR for IC in infants born before gestational week 32 (OR=1.6 [1.1; 2.4]).

Results were similar when stratified for maternal smoking.

Conclusions: The results indicate that both low BW and preterm birth are associated with IC, and that this association appears independent of maternal smoking.