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## TABLES

Table 1. Background characteristics of the study cohort.

|  | Included children $n=58,675$ |  | $\begin{gathered} \text { Excluded children }^{1} \\ n=54,029 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
|  | Coeliac disease $n=440$ | No coeliac disease $n=58,235$ |  |
| Maternal age (Mean (SD)) |  |  |  |
|  | 30.2 (4.2) | 30.3 (4.4) | 29.9 (4.9) |
| Maternal parity ( $n$ [\%]) |  |  |  |
| 0 | 206 (46.8) | 27,286 (46.9) | 21,924 (41.1) |
| 1 | 160 (36.4) | 20,178 (34.7) | 19,755 (37.0) |
| 2+ | 74 (16.8) | 10,771(18.5) | 11,651 (21.8) |
| Maternal education ( $n$ [\%]) ${ }^{2}$ |  |  |  |
| High school or less than high school | 138 (31.5) | 19,842 (34.2) | 18,371 (42.4) |
| Up to 4 years of college | 185 (42.2) | 24,860 (42.8) | 15,758 (36.3) |
| More than 4 years of college | 115 (26.3) | 13,320 (23.0) | 9,241 (21.3) |
| Maternal length (Mean [SD] ${ }^{3}$ |  |  |  |
|  | 168.1 (6.2) | 168.2 (5.9) | 167.9 (6.1) |
| Maternal pre-pregnancy BMI ( $n$ [\%]) ${ }^{4}$ |  |  |  |
| Underweight (<18.5) | 20 (4.6) | 1,626 (2.9) | 1,485 (3.5) |
| Normal weight (18.5-24.9) | 290 (66.8) | 37,598 (66.0) | 27,226 (64.6) |
| Overweight/obese (>=25) | 124 (28.6) | 17,736 (31.1) | 13,456 (31.9) |
| Paternal length (Mean [SD] ${ }^{\text {e }}$ |  |  |  |
|  | 181.7 (5.8) | 181.6 (6.4) | 181.4 (6.5) |
| Paternal BMI ( $n$ [\%]) ${ }^{5}$ |  |  |  |
| Underweight (<18.5) | 2 (0.5) | 110 (0.2) | 98 (0.2) |
| Normal weight (18.5-24.9) | 193 (45.7) | 25,198 (45.1) | 18,170 (44.2) |
| Overweight/obese (>=25) | 227 (53.8) | 30,536 (54.7) | 22,847 (55.6) |
| Smoking during pregnancy ( $n$ [\%]) ${ }^{6}$ |  |  |  |
| Yes | 23 (5.2) | 4,088 (7.1) | 4,501 (10.4) |
| Maternal coeliac disease ( $n$ [\%]) ${ }^{7}$ |  |  |  |
| Yes | 43 (9.8) | 424 (0.7) | 415 (0.8) |
| Gestational age in weeks (categorical) ${ }^{8}$ |  |  |  |
| < 37 | 23 (5.3) | 2,273 (3.9) | 5,319 (10.0) |
| Sex |  |  |  |
| Female | 270 (61.4) | 28,321 (48.6) | 25,874 (48.7) |
| Duration of breastfeeding ( $n$ [\%]) ${ }^{9}$ |  |  |  |
| <6 months | 57 (13.2) | 9,277 (16.4) | 3,579 (22.0) |
| 6-12 months | 170 (39.5) | 24,979 (44.2) | 7,000 (43.1) |
| $\geq 12$ months | 203 (47.2) | 22,276 (39.4) | 5,667 (34.9) |
| Infection frequency 0-18 months ( n [\%]) ${ }^{10}$ |  |  |  |
| 0-4 episodes | 104 (24.3) | 14,151 (25.2) | 4,046 (25.4) |
| 5-6 episodes | 73 (17.1) | 11,494 (20.5) | 3,091 (19.4) |
| 7-9 episodes | 110 (25.7) | 14,538 (25.9) | 4,026 (25.3) |
| >=10 episodes | 141 (32.9) | 16,005 (28.5) | 4,764 (29.9) |
| Attained age end 2013 (Mean [SD]) ${ }^{11}$ |  |  |  |
|  | 8.9 (2.1) | 8.6 (2.2) | 8.5 (2.2) |
| Birth weight in kg (SD) ${ }^{12}$ |  |  |  |
|  | 3.54 (0.53) | 3.62 (0.53) | 3.50 (0.64) |
| Birth length in cm (SD) ${ }^{13}$ |  |  |  |
|  | 50.2 (2.2) | 50.5 (2.2) | 50.1 (2.5) |

SD, Standard deviation; BMI, body mass index.
${ }^{1}$ Prevalence of coeliac disease among excluded participants; 326/54,029 (0.6 \%)
${ }^{2}$ Maternal education level at time of pregnancy, categorized into $\leq 12$ years of education (corresponding to primary school, secondary school and high school), 13-15 years (corresponding to $\leq 3$ years of college or university studies) and $\geq 16$ years (corresponding to $>3$ years of college or university studies). Percentages may not total $100 \%$ because of rounding. Missing n (\%): cases 2 ( 0.5 ), controls 213 (0.4), excluded 10,659 (19.7)
${ }^{3}$ Missing $\mathrm{n}(\%)$ : cases 4 ( 0.9 ), controls 547 ( 0.9 ), excluded 10,978 (20.3).
${ }^{4}$ Missing $n(\%)$ : cases 6 (1.4), controls 1,275 (2.2), excluded 11,862 (22.0).
${ }^{5}$ Missing $n(\%)$ : cases 10 (2.3), controls 1,415 (2.4), excluded 11,925 (22.1).
${ }^{6}$ Missing $n(\%)$ : cases 18 (4.1), controls 2,391 (4.1), excluded 12,914 (23.9).
${ }^{7}$ Missing $n(\%)$ : cases $0(0)$, controls 312 ( 0.5 ), excluded 10,681 (19.8).
${ }^{8}$ Identified through pregnancy questionnaires and the Norwegian Patient Registry.
${ }^{9}$ Data from the Medical Birth Registry. Missing n (\%): cases 3 (0.7), controls 211 (0.4), excluded 1,001 (2.2).
${ }^{10}$ Missing n (\%): cases 10 (2.3), controls 1,703 (2.9), excluded 37,783 (69.9).
${ }^{11}$ Missing n (\%): cases 12 (2.7), controls 2047 (3.5), excluded 38,102 (70.5).
${ }^{12}$ Missing $n(\%)$ : cases 0 , controls 0 , excluded 699 (1.3).
${ }^{13}$ Missing $n(\%)$ : cases 0 , controls 0 , excluded 1528 (2.8).
${ }^{14}$ Missing $n(\%)$ : cases 0 , controls 0 , excluded 6,219 (11.5).

Table 2. Association between coeliac disease and anthropometric z-scores at different time points from birth till 24 months of age.

| Anthropometric measurement | $\begin{gathered} \text { Model } 1^{1} \\ (\boldsymbol{\beta}, \mathbf{9 5 \%} \mathbf{C I}) \end{gathered}$ | $\begin{gathered} \text { Model 2 }{ }^{2} \\ (\mathrm{a} \beta, 95 \% \mathrm{CI}) \end{gathered}$ | $\begin{gathered} \text { Model } 3^{3} \\ (\mathrm{a} \beta, 95 \% \mathrm{CI}) \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Length |  |  |  |
| Birth | -0.06 (-0.15 to 0.04) | -0.06 (-0.15 to 0.04) | -0.02 (-0.11 to 0.06) ${ }^{4}$ |
| 3 months | -0.08 (-0.18 to 0.02) | -0.06 (-0.13 to 0.01) | -0.07 (-0.14 to 0.00) ${ }^{5}$ |
| 6 months | -0.10 (-0.20 to -0.01) | -0.07 (-0.15 to 0.01) | -0.08 (-0.16 to -0.00) ${ }^{6}$ |
| 8 months | -0.12 (-0.22 to -0.02) | -0.07 (-0.15 to 0.01) | $-0.07(-0.15 \text { to } 0.02)^{7}$ |
| 12 months | -0.12 (-0.21 to -0.02) | -0.08 (-0.17 to 0.00) | -0.09 (-0.18 to -0.01$)^{8}$ |
| 15-18 months | -0.12 (-0.22 to -0.03) | -0.10 (-0.19 to -0.02) | -0.11 (-0.19 to -0.03) ${ }^{9}$ |
| 24 months | -0.26 (-0.39 to -0.12) | -0.23 (-0.35 to -0.11) | $-0.24(-0.36 \text { to }-0.12)^{10}$ |
| Weight |  |  |  |
| Birth | -0.12 (-0.21 to -0.03) | -0.12 (-0.21 to -0.03) | $-0.07(-0.15 \text { to } 0.02)^{11}$ |
| 3 months | -0.08 (-0.18 to 0.02) | -0.03 (-0.11 to 0.05) | -0.03 (-0.11 to 0.05) ${ }^{12}$ |
| 6 months | -0.11 (-0.21 to -0.02) | -0.06 (-0.15 to 0.03) | -0.05 (-0.14 to 0.04) ${ }^{13}$ |
| 8 months | -0.11 (-0.21 to -0.01) | -0.05 (-0.14 to 0.04) | -0.02 (-0.11 to 0.07) ${ }^{14}$ |
| 12 months | -0.15 (-0.24 to -0.05) | -0.10 (-0.19 to -0.01) | -0.07 (-0.16 to 0.02) ${ }^{15}$ |
| 15-18 months | -0.15 (-0.24 to -0.06) | -0.11 (-0.20 to -0.02) | $-0.09(-0.18 \text { to }-0.00)^{16}$ |
| 24 months | -0.21 (-0.35 to -0.08) | -0.17 (-0.29 to -0.04) | -0.16 (-0.29 to -0.03) ${ }^{17}$ |

CI, confidence interval; ${ }^{a} \beta$, adjusted beta.
Note. Values ( $\beta \mathrm{s}$ ) are based on linear regression models and reflect between-group differences in mean height and weight relative to reference group.
1 "Crude model" unadjusted.
2 "Baseline model" adjusted for z-score at birth.
3 "Multivariable model" adjusted for z-score at birth, maternal coeliac disease, maternal education, maternal smoking in pregnancy, birth weight, preterm birth, duration of breastfeeding, childhood infections 0-18 months.
${ }^{4}$ Missing n (\%); Model 3, 5,840 (10); Model 2, 0 (0).
${ }^{5}$ Missing $n(\%)$; Model 3, 8,294 (14); Model 2, 4,414 (8).
${ }^{6}$ Missing n (\%); Model 3, 9,437 (16); Model 2, 5,615 (10).
${ }^{7}$ Missing n (\%); Model 3, 11,004 (19); Model 2, 5,715 (10).
${ }^{8}$ Missing n (\%); Model 3, 8,357 (14); Model 2, 2,866 (5).
${ }^{9}$ Missing $\mathrm{n}(\%)$; Model 3, 5,911 (10); Model 2, 76 (0).
${ }^{10}$ Missing $n(\%)$; Model 3, 34,308 (58); Model 2, 32,165 (55).
${ }^{11}$ Missing n (\%); Model 3, 4,626 (8); Model 2, 0 (0).
${ }^{12}$ Missing n (\%); Model 3, 6,376 (11); Model 2, 3,608 (6).
${ }^{13}$ Missing n (\%); Model 3, 8,035 (14); Model 2, 5,353 (9).
${ }^{14}$ Missing n (\%); Model 3, 9,520 (16); Model 2, 5,353 (9).
${ }^{15}$ Missing n (\%); Model 3, 7,154 (12); Model 2, 2,809 (5).
${ }^{16}$ Missing n (\%); Model 3, 4,697 (8); Model 2, 78 (0).
${ }^{17}$ Missing n (\%); Model 3, 33,728 (57); Model 2, 32,252 (55).


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