**S****upplementary Table 1. LT4 dosage at 1, 2 and 3 years of age**

|  |  |  |
| --- | --- | --- |
| (A) Group P vs Group T | | |
| LT4 dosage, µg/kg/day | Group P, n (%) | Group T, n (%) |
| At 1 year  <1.74  1.74-4.79  >4.79 | 2 (2.7%)  47 (62.7%)  26 (34.7%) | 3 (12.5%)  21 (87.5%)  0 (0%) |
| At 2 years  <1.56  1.56-4.39  >4.39 | 0 (0%)  55 (73.3%)  20 (26.7%) | 4 (16.7%)  20 (83.3%)  0 (0%) |
| At 3 years  <1.45  1.45-3.96  >3.96 | 1 (1.3%)  54 (72.0%)  20 (26.7%) | 8 (33.3%)  16 (66.7%)  0 (0%) |
| (B) Group PE vs Group T | | |
| LT4 dosage, µg/kg/day | Group PE, n (%) | Group T, n (%) |
| At 1 year  <1.74  1.74-4.85  >4.85 | 2 (4.3%)  35 (76.1%)  2 (19.6%) | 3 (12.5%)  21 (87.5%)  0 (0%) |
| At 2 years  <1.56  1.56-4.63  >4.63 | 0 (0%)  40 (87.0%)  6 (13.0%) | 4 (16.7%)  20 (83.3%)  0 (0%) |
| At 3 years  <1.45  1.45-3.97  >3.97 | 2 (2.7%)  47 (62.7%)  26 (34.7%) | 3 (12.5%)  21 (87.5%)  0 (0%) |

**Supplementary Table 2. Cutoffs for LT4 dosage in the present and additional studies**

The additional study included 24 group T patients in the present study and 18 additional group T patients aged 3-5 years in whom T-CH was diagnosed in a study by Higuchi and Hasegawa at one of the participating institutions (TMCMC) [15]. The cutoff values in this table showed 100% specificity.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | N | | Cutoffs for LT4 dosage  at 1 year | | Cutoffs for LT4 dosage  at 2 years | |
| Group P | Group T | Group P | Group T | Group P | Group T |
| Present study | 75 | 24 | >4.79 | Not detected | >4.39 | <1.56 |
| Additional study | 75 | 42 | >4.79 | <1.07 | >4.39 | <1.56 |

**Supplementary Table 3. Lab data and LT4 dosage** **at 1, 2, and 3 years of age and at the last visit**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | At 1 year | | At 2 years | | At 3 years | | At last visit | |
| Group P | Group T | Group P | Group T | Group P | Group T | Group P | Group T |
| Serum TSH, µIU/ml, median (range) | 4.28  (N.D – 71.1) | 2.37  (0.30 – 5.80) | 5.49  (N.D. – 79.8) | 2.38  (0.16 – 5.66) | 4.64  (0.20- 40.94) | 2.22  (0.27 – 10.42) | 2.34  (N.D. – 22.4) | 2.37  (0.92 – 5.53) |
| Serum fT4, ng/dl, median (range) | 1.60  (0.9 – 3.6) | 1.62  (0.99 – 2.00) | 1.59  (0.99 – 2.73) | 1.49  (1.08 – 2.2) | 1.5  (1.00 – 2.50) | 1.60  (1.10 – 1.86) | 1.46  (0.12 – 2.80) | 1.21  (0.90 – 1.60) |
| Initial LT4 dosage, µg/kg/day,  mean ± SD | 4.11 ± 1.67 | 2.94 ±　0.88 | 3.57 ± 1.18 | 2.39 ± 0.76 | 3.31 ± 1.27 | 1.93 ± 0.93 | 1.68 ± 0.65 | - |