***Supplementary Table 1:* Characteristics of participants selected for personal interview and recommendation for further examinations**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | Age (y)/Gender |  | LIFEChild | General practitioner and/or paediatric gastroenterologist | Remarks  |
| IgA-TTG(T0) | IgG-DGP(T0) | IgA-EMA(T0) | IgA-TTG(T1) | IgG-DGP(T1) | IgA-EMA(T1) | HLA | Symptoms and CD-associated conditions | IgA-TTG\*(T2) | IgG-DGP\*(T2) | Histology | Preliminary Diagnosis# |
| 1 | 11.9F | 5.49 | 0.73 | 320 | 6.04 | 0.87 | 320 | DQ2.5 | 1,2,4 | 6.23 | 1.80 | Marsh 3C | CD |  |
| 2 | 3.7F | 5.86 | 0.95 | 100 | 8.31 | 1.43 | 100 | DQ8 | 1,5 | <0.30 | <0.38 | Marsh 3A | CD |  |
| 3 | 11.0F | 15.64 | 6.32 | 1000 | 16.34 | 5.23 | 320 | DQ2.5 | 0DMT1 | 4.14 | 2 | Marsh 3B | CD |  |
| 4 | 12.3M | 51.35 | 5.91 | 3200 | 66.07 | 3.04 | 3200 | DQ2.5 | 0 | n.a. | n.a. | n.a. | CD | Parents refuse further clarification |
| 5 | 16.4F | 82.63 | 0.74 | 3200 | n.a. | n.a. | n.a. | n.a. | 1,2,3,4 | 16.14 | 0.48 | Marsh 3B | CD |  |
| 6 | 10.3M | 85.87 | 0.80 | 10000 | n.a. | n.a. | n.a. | DQ2.5 | 1Mother with CD | 11.14 | 0.71 | n.a. | CD | IgA-EmA positivity and HLA-DQ2.5 also at PG |
| 7 | 7.5F | 96.48 | 4.67 | 3200 | 105.24 | 4.56 | 1000 | DQ2.5 and DQ8 | 2 | >25 | 4.81 | Marsh 3A | CD |  |
| 8 | 5.1M | 105.82 | 3.98 | 3200 | n.a. | n.a. | n.a. | DQ2.5 | 0 | n.a. | n.a. | n.a. | CD | Parents refuse further clarification |
| 9 | 4.7F | 130.14 | 12.15 | 3200 | 116.63 | 2.06 | 3200 | DQ2.5 | 1 | >25 | 4.19 | Marsh 3A | CD |  |
| 10 | 16.1F | 235.60 | 2.48 | 10000 | n.a. | n.a. | n.a. | n.a. | 1,3 | n.a. | n.a. | n.a. | CD |  |
| 11 | 13.5M | 0.10 | 1.01 | 0 | n.a. | n.a. | n.a. | DQ8 | n/a | n.a. | n.a. | n.a. | Non-CD | No contact |
| 12 | 16.6M | 0.10 | 1.72 | 0 | n.a. | n.a. | n.a. | DQ2.5 | n.a. | n.a. | n.a. | n.a. | Non-CD | No contact |
| 13 | 9.0F | 0.10 | 1.97 | 0 | 0.10 | 1.62 | 0 | DQ2.5 | 1,2,3,6Brother with CD | <0.3 | 1.69 | Normal | Non-CD |  |
| 14 | 13.5M | 0.10 | 2.00 | 0 | 0.10 | 1.27 | n.a. | DQ2.5 and DQ8 | 0Mother with Hashimoto thyroiditis | n.a. | n.a. | n.a. | Non-CD |  |
| 15 | 8.1F | 0.10 | 2.14 | 0 | 0.10 | 1.67 | n.a. | DQ8 | 1,2,3 | <0.3 | 0.45 | n.a. | Non-CD | Fructose malabsorption |
| 16 | 1.35F | 0.10 | 2.57 | 0 | n.a. | n.a. | n.a. | DQ2.5 | 1Selective IgA deficiencyMother with Hashimoto thyroiditis | <0.3 | 0.38 | Normal | Non-CD |  |
| 17 | 15.8F | 0.19 | 1.64 | 0 | n.a. | n.a. | n.a. | DQ2.5 | n.a. | n.a. | n.a. | n.a. | Non-CD | No contact |
| 18 | 9.51M | 0.34 | 1.79 | 0 | 0.82 | 2.74 | 0 | DQ2.5 | 1,2,3 | 4.2 | 0.8 | Crypt hyperplasia | Non-CD |  |
| 19 | 12.7M | 0.66 | 1.01 | 0 | 1.31 | 1.06 | 0 | DQ2.5 | 2,3,4Mother with Hashimoto thyroiditis | 0.07 | 0.06 | Normal | Non-CD |  |
| 20 | 13.3M | 0.73 | 0.28 | 32 | 1.45 | 0.49 | 100 | DQ8 | 0Sister and Mother with CD | 0.75 | 0.38 | n.a. | Non-CD |  |
| 21 | 13.9F | 0.76 | 0.08 | 0 | 0.94 | 0.08 | 0 | DQ2.5 | n/a | n.a. | n.a. | n.a. | Non-CD | No contact |
| 22 | 8.9M | 0.78 | 0.73 | 0 | 7.50 | 0.45 | 0 | DQ8 | 1,2,7 | 0.39 | 0.38 | Normal | Non-CD | Increased Calprotectin at PG |
| 23 | 4.61M | 1.17 | 0.08 | 10 | 0.13 | 0.08 | 0 | DQ2.5 | 2 | negative | negative | Normal | Non-CD |  |
| 24 | 10.2M | 1.62 | 0.08 | 100 | 0.11 | 0.08 | 0 | DQ2.5 | 0 | negative | negative | n.a. | Non-CD | Epilepsy |
| 25 | 7.9M | 8.56 | 1.78 | 1000 | 0.80 | 0.25 | 0 | DQ2.5 | 0 | <0.3 | 0.22 | n.a. | Non-CD |  |
| 26 | 7.8F | 9.42 | 0.51 | 1000 | 1.39 | 0.23 | 100 | DQ2.5 | 0 | negative | negative | n.a. | Non-CD |  |
| 27 | 11.1M | 0.66 | 0.17 | 0 | 1.73 | 0.45 | 0 | DQ2.5 | 1,2,4 | n.a. | n.a. | n.a. | Unclear |  |
| 28 | 16.6F | 0.86 | 0.08 | 0 | 2.65 | 0.08 | 0 | DQ2.5 | 1,2,3,8,9 | n.a. | n.a. | n.a. | Unclear |  |
| 29 | 17.9F | 1.07 | 0.17 | 0 | n.a. | n.a. | n.a. | DQ2.5 | 1,2,3Cousin with CD | 1.13 | 0.18 | n.a. | Unclear | Partially on GFD with improvement, Suspicion of wheat allergy |
| 30 | 16.5M | 1.38 | 0.11 | 0 | n.a. | n.a. | n.a. | DQ2.2 and DQ8 | n/a | n.a. | n.a. | n.a. | Unclear | No contact |
| 31 | 14.9M | 1.48 | 0.61 | 0 | 3.68 | 0.57 | 0 | DQ2.5 | 0 | n.a. | n.a. | n.a. | Unclear | Parents refuse further clarification |
| 32 | 3.9M | 2.43 | 0.25 | 0 | n.a. | n.a. | n.a. | n.a. | 2,3Mother with Hashimoto thyroiditis | n.a. | n.a. | n.a. | Unclear |  |
| 33 | 6.0F | 2.76 | 0.97 | 100 | n.a. | n.a. | n.a. | DQ2.5 | 0Aunt with CD and Hashimoto thyroiditis | n.a. | n.a. | n.a. | Unclear |  |
| 34 | 5.8F | 4.64 | 0.84 | 100 | 2.68 | 0.39 | 32 | DQ8 | 0 | n.a. | n.a. | n.a. | Unclear |  |
| 35 | 12.0M | 4.70 | 0.52 | 320 | 3.90 | 0.24 | 32 | DQ2.5 | 0 | n.a. | n.a. | n.a. | Unclear |  |
| 36 | 5.7F | 5.89 | 0.57 | 100 | n.a. | n.a. | n.a. | DQ2.5 and DQ8 | 1,3 | n.a. | n.a. | n.a. | Unclear | Parents refuse further clarification |
| 37 | 8.1M | 6.05 | 0.25 | 100 | n.a. | n.a. | n.a. | DQ2.5 | 0 | n.a. | n.a. | n.a. | Unclear | Refusal of further blood withdrawals |
| 38 | 5.7F | 6.88 | 1.42 | 320 | 2.42 | 2.49 | 0 | n.a. | 0 | n.a. | n.a. | n.a. | Unclear | Parents refuse further clarification |
| 39 | 4.5M | 9.75 | 1.30 | 320 | 1.55 | 0.08 | 0 | DQ8 | 0 | n.a. | n.a. | n.a. | Unclear | Parents refuse further clarification |

Concentration of IgA-TTG and of IgG-DGL expressed as multiples of cut-offs (×ULN). Symptoms: 0 = asymptomatic, 1 = diarrhoea, 2 = abdominal pain, 3 = abdominal distension, 4 = mental complaints, 5 = paleness, 6 = short stature, 7 = fatigue, 8 = joint pain, 9 = recurrent headache. \* tests of different manufacturers used, # diagnosis due to our pre-definitions of CD. Non-CD = not suggestive for Coeliac disease.