Psychosocial risks, comorbidities and health events during the follow-up of children and adolescents with type 1 diabetes

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Background: Psychosocial factors and health events are important for patients with type 1 diabetes (TD1).

Objective and hypotheses: To assess the psychosocial factors, health events and comorbidity found at diagnosis and follow up of children and adolescents with type TD1.

Method: We reported 55 children aged between 2-18 years with TD1, controlled by our Paediatric Endocrinology team (2010-2017).

- Diabetes care included: 1 week of hospitalization at diagnosis, diabetologic education, 5-6 outpatient visits per year, phone or email support.
- The insulin regimen was basal-bolus, with rapid-acting and long-acting insulin analogues in 52 patients and ISCI in 3.
- All instructed in carbohydrate counting.
- 18 (32.72%) children used continuous glucose monitoring system (CGMS).

Results:

- 55 TD1 children (19 girls 34.54%, 36 boys); Diagnosis age: 7.78 years, +/- 3.66 (1.75-15.75)
- 38 were Spanish and 17 were immigrants (30.90%), most from Morocco or Romania.
- Prediagnostic diseases: 2 celiac disease, 2 thyroiditis, 2 IgA deficiency, 1 Down syndrome, 1 viral myocarditis, 3 preterm,
- 10.9% had relatives with DM1 and 12.72% with autoimmune thyroid diseases.
- Diabetic ketoacidosis in 17 debuts (30.09%).
- Mean HbA1c at diagnosis: 11.2%+ 2.45 (5.3-16.2)
- Mean Anti-GAD: 198 +528 (0-2500).

Follow up:

- Months of follow up: 61.41 +/-41.83 (1-168);
- Last HbA1c: 7.8% +/- 1.25, (5.4-11.5%);
- 16.36% severe hypoglycemia occurred;
- 34.54% patients needed hospitalization after debut (ketoacidosis, hypoglycemia, poor control, infectious diseases).
- In 14.54%, family collaboration was poor;
- 14.54% had poor school adjustment, and 2 had learning impairment (Down S. limbic encephalitis).
- One girl had autoimmune limbic encephalitis with psychosis, intellectual disability and refractory epilepsy that improved with IV immunoglobulin
- 21.8% adolescents had psychiatric or psychosocial problems.
- 10.9% had dyslipidemia; 9.09% celiac disease; 12.72% thyroiditis, (5 hypothyroidism);
- 10.9% microalbuminuria; none diabetic retinopathy; 2 pancreatitis and 1 atrophic gastritis.
- Weight and height were normal except 1 short stature and 5 overweight.
- High socioeconomic status, were significantly associated with better glycemic control.

No conflicts of interest