Markedly reduced rate of diabetic ketoacidosis at onset of type 1 diabetes in relatives screened for islet autoantibodies.

Abstract:
To determine whether screening for islet autoantibodies in children prevents ketoacidosis and other metabolic complications at diabetes onset and improves the clinical course after diagnosis. The German BABYDIAB and the Munich Family Study follow children with a first-degree family history of type 1 diabetes for the development of islet autoantibodies and type 1 diabetes. The Diabetes Prospective Documentation (DPV) Initiative registers and collects information on pediatric patients with type 1 diabetes throughout Germany. Here, clinical characteristics at diabetes onset [ketoacidosis, mean hemoglobin A1c (HbA1c), and length of hospitalization] and the 5-yr clinical course (HbA1c and insulin dose) of screened and followed islet autoantibody-positive children (n = 101) and 49,883 non-screened children within the DPV registry were compared. At diabetes onset, children who were followed after screening and were positive for islet autoantibodies had lower HbA1c (8.6 vs. 11%, p < 0.001) and a lower prevalence of diabetic ketoacidosis (3.3 vs. 29.1%, p < 0.001). Screened children also had a shorter hospitalization period at onset (11.4 vs. 14.9 d, p = 0.005). Similar results were observed when the analysis was restricted to 759 non-screened DPV children with a first-degree family history of type 1 diabetes. No differences between screened and non-screened children were observed.
with respect to HbA1c and insulin dose during the first 5 yr after diagnosis. Screening for islet autoantibodies in children likely leads to earlier diabetes diagnosis resulting in less complications at diagnosis. However, no substantial benefit in the clinical outcome during the first 5 yr after diagnosis was observed.

Zeitschriftentitel / Abkürzung:
Pediatr Diabetes

Jahr:
2012

Band:
13

Heft / Issue:
4

Seiten:
301-6

Sprache:
eng

Pubmed:

Print-ISSN:
1399-543X

TUM Einrichtung:
Kinderklinik und Poliklinik

Occurences:
- Einrichtungen > Fakultäten > Fakultät für Medizin > Kliniken und Institute > Klinik und Poliklinik für Kinderheilkunde und Jugendmedizin > 2012

entries: