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50 Years Ago in *THE JOURNAL OF PEDIATRICS*

Type 1 Diabetes Mellitus and the Presence of Other Autoimmune Disease

Goldstein DE, Drash A, Gibbs J, Blizzard RM. Diabetes mellitus: the incidence of circulating antibodies against thyroid, gastric, and adrenal tissue. *J Pediatr* 1970;77:304-6.

In 1910, Dr John Parkinson (later to describe Wolff-Parkinson–White syndrome) reported the first case of diabetes mellitus coexisting with another autoimmune condition. He diagnosed a 49-year-old man with pernicious anemia who died months later of diabetes.¹ It was not until the 1960s that an association between type 1 diabetes mellitus (T1D) and other autoimmune conditions was identified.²

Goldstein et al collected the serum of individuals with both “juvenile” and “adult” diabetes and compared them with controls to determine the incidence of antibodies to thyroid, gastric, adrenal, and renal tissue. They found that those with onset of diabetes at <20 years of age had a 15% incidence of antibody presence, almost exclusively thyroid and gastric antibodies, compared with <1% in controls. In contrast, the incidence of antibodies in those with diabetes diagnosed after 40 years of age did not differ from their peers.

We know now that T1D occurs through an immune-mediated process and is associated with an increased risk of other autoimmune conditions (in decreasing order of incidence): thyroid disease, celiac disease, pernicious anemia, autoimmune hepatitis, primary adrenal insufficiency, autoimmune gastritis, dermatomyositis, and myasthenia gravis.³ Autoimmune hypothyroidism is the most common autoimmune disorder associated with T1D, occurring in about 10% of patients with T1D.⁴ Celiac disease was first described in 1888, but the association between gluten-containing foods and enteropathy was not established until the 1950s. With increased awareness of risk and the insidious onset of some of these conditions, the American Diabetes Association guidelines recommend screening children with T1D for autoimmune thyroid and celiac disease soon after diagnosis and periodically thereafter.⁵

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