Towards Early Risk Stratification in Children and Adolescents with Type 1 Diabetes

1. Poor glycaemic control is a dominant risk factor for the development of complications in patients with type 1 diabetes. However, certain subgroups develop complications despite good glycaemic control – this thesis.

2. In some patients who develop type 1 diabetes in childhood, the first steps in the pathophysiological process leading to complications start within the first decade of their disease. Appropriate screening tests for the detection of early signs of these complications in this age-group are still lacking – this thesis.

3. Longitudinal studies into risk factors, surrogate markers and complications are necessary to improve risk stratification which in turn will influence the lifetime perspective of patients with type 1 diabetes – this thesis.

4. When developing screening tests for subclinical diabetic peripheral neuropathy in children and adolescents with type 1 diabetes, it would help if patients have a lot of time, do not mind having a quite invasive test and if an appropriate, internationally accepted standard reference test would be available – this thesis.

5. Individualized screening protocols instead of generalized screening protocols might be the future of diabetes care – this thesis.

6. Analysis of genetic data in human disease typically uses a binary disease model of cases and controls. However, many common human diseases show extensive clinical and phenotypic diversity, which may represent multiple causative pathophysiological processes – adapted from Liley, Nature Genetics 2017.

7. Pediatricians have to grow up where it matters talking about dyslipidemia – quote S.A. Bovenberg, endocrinologist. Internists have to ‘grow down’ when it comes to the dynamics and consequences of puberty and adolescence – quote H.J. Aanstoot, pediatrician.

8. Research suffers from the street light effect. Exploration in the dark is both difficult and unpleasant as it may lead to nothing, but may be needed to accelerate the advancement of knowledge – adapted from Battaglia and Atkinson, Diabetes 2015 and Lernmark, Diabetes 2015.

10. The legs are the wheels of creativity – adapted from Albert Einstein.

11. It is great art to remember that boundaries are of our own making and that they can and should be reconsidered for each new discussion, problem, or purpose. It is a challenge to stay creative enough to drop the boundaries that worked for the last problem and to find the most appropriate set of boundaries for the next question – adapted from Donella Meadows, Thinking in Systems.

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