

When to screen for Coeliac disease in children with Type 1 Diabetes Mellitus: the controversy

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Background

- ❖ The reported mean prevalence of Coeliac disease in patients with Type 1 Diabetes Mellitus (T1DM) is 8%¹. This contrasts with a prevalence of only 0.5% to 1% in the general population.
- ❖ Routine screening for Coeliac disease beyond the first year of diagnosis with T1DM is controversial due to a paucity of high quality evidence.
- ❖ The UK guidelines (NICE) only recommend screening at diagnosis with T1DM or if subsequently symptomatic²; whereas the International Society for Paediatric and Adolescent Diabetes (ISPAD) recommends routine screening every 1 to 2 years.

Objective

- ❖ We hypothesised that annual screening for Coeliac disease in asymptomatic children with T1DM is more sensitive than only screening when newly diagnosed with T1DM or symptomatic.

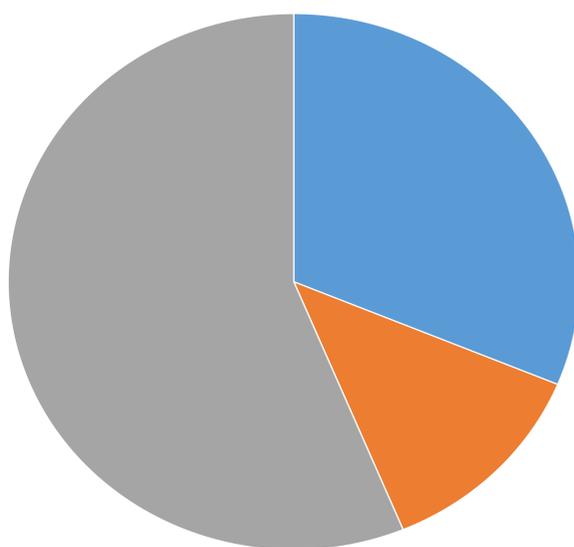
Methods

- ❖ Retrospective observational study in a large general hospital that screens annually for Coeliac disease.
- ❖ Data collected simultaneously for both audit and research purposes. The audit focused on adherence to NICE guidelines: determining whether patients with T1DM were screened at least once at diagnosis for Coeliac disease
- ❖ An open cohort was studied using electronic and paper records for all patients with T1DM, who had been under the care of Paediatrics at anytime from 2005 to 2014.
- ❖ Patients with Type 2 Diabetes Mellitus were excluded.
- ❖ Data were extracted in relation to demographics, screening for Coeliac disease, TTG results, small bowel biopsy, and defined symptoms suspicious for Coeliac disease.

Results

- ❖ We identified 204 patients with T1DM who were eligible for Coeliac disease screening, of whom 187 (90.78%) were tested for Coeliac disease.
- ❖ The proportion of tested patients who were diagnosed with Coeliac disease was 9.63% (95% CI = 5.4% - 13.86%).
- ❖ Analysis of 16 patients with Coeliac disease revealed that only five (31.25%) were diagnosed through screening at the point of presentation with T1DM, and two (12.5%) were diagnosed following testing prompted by clinical suspicion.
- ❖ The majority (56.25%) were diagnosed by routine screening whilst asymptomatic, ranging from 1 year and 9 months to 6 years and 9 months after their diagnosis with T1DM. Figure 1

Figure 1: Timing of diagnosis of Coeliac disease in patients with T1DM



- Screening at T1DM presentation
- Clinical suspicion of Coeliac disease in a patient with known T1DM
- Routine annual screening after T1DM presentation

Conclusions

- ❖ This study supports growing evidence that the UK guidelines should mirror the ISPAD recommendation to routinely screen for Coeliac disease beyond the first year of presentation with T1DM. Targeted RCTs and studies of cost-effectiveness may provide evidence to recommend putative screening intervals

References

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Declaration

The authors are not aware of any conflict of interest

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