4 Coeliac disease

Prevalence in New Zealand

Coeliac disease has a prevalence of approximately 1% in the general New Zealand population. Prevalence in those with a first-degree relative with coeliac disease is about 1 in 10.

Who to test

Testing is recommended for all symptomatic children and adults as well as asymptomatic people at increased risk.

People at increased risk include:[1]

- Siblings of any index case
- Those with type I diabetes and other systemic autoimmune disorders
- Patients with IgA deficiency
- Children with Down syndrome

Antibody tests are less reliable for excluding coeliac disease in very young children. Where there is strong clinical suspicion of coeliac disease and negative serology it is recommended that the child be referred for specialist opinion.

In New Zealand, screening of asymptomatic people is not recommended.

What tests to use

Serological tests are the most useful preliminary step for testing symptomatic people and those with an increased risk of coeliac disease.[1,2] People must have consumed adequate amounts of gluten (equivalent to four slices of bread daily) for 4–6 weeks prior to testing.[3] Negative results can not exclude coeliac disease if the patient has had a significantly reduced gluten intake.

Initial testing for coeliac disease	
Tissue transglutaminase antibodies	✓
Endomysial antibodies	✗
Gliadin antibodies	✗
HLA typing (HLA-DQ2 and DQ8)	✗

IgA tissue transglutaminase antibodies (TTG)

- The preferred initial test for detecting coeliac disease
- The TTG test detects IgA antibodies; consequently, tests can be negative in patients with coeliac disease with a coexisting IgA deficiency (more common in people with coeliac disease). To detect IgA deficiency, laboratories routinely test for total serum IgA whenever a TTG test is requested. If an IgA deficiency is detected, the IgG TTG test is performed.

Endomysial antibodies

- May be useful to confirm an equivocal TTG or for monitoring compliance
- When TTG antibodies are negative, the additional value of performing endomysial antibodies is low

Gliadin antibodies

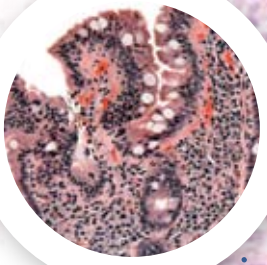
- Unnecessary for the diagnosis of either coeliac disease or "gluten sensitivity"
- Should no longer be requested

HLA typing (HLA-DQ2 and DQ8)

- Virtually all patients with coeliac disease are either HLA DQ2 or DQ8 positive, compared with 20–30% of the general population. In the rare circumstances that serological testing is equivocal, the absence of these HLA haplotypes can help exclude the diagnosis of coeliac disease

Who requires biopsy?

Biopsy is recommended to confirm the diagnosis of coeliac disease. Serological testing may not correlate with mucosal damage and it is important to determine the degree of inflammation and villous atrophy in the gut as well as excluding other small bowel disease. A biopsy test may be appropriate if there is strong clinical suspicion, even if the TTG antibody test is negative. Serological testing may not be accurate in children under 5 years of age.



COELIAC MICROGRAPH: SAMIR, WIKIMEDIA

References:

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2. BPAC. Best Practice Journal. Issue 9. Coeliac Disease. Available from www.bpac.org.nz keyword "coeliac disease"
3. BPAC. Best Tests Best Tests March 2007. Testing for Coeliac disease. Available from www.bpac.org.nz keyword "coeliac disease"