

Give gluten a chance! Time to schedule gluten re-introduction in celiac patients on a long-term gluten-free diet?

Luca Elli MD PhD^{1,2*}, Lorenzo Norsa MD PhD³, Leda Roncoroni PhD^{1,4},

Maurizio Vecchi MD PhD^{1,2}

1 Center for Prevention and Diagnosis of Celiac Diseases-Gastroenterology and Endoscopy Unit, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy

2 Department of pathophysiology and transplantation, University of Milano, Milano, Italy

3 Pediatric Hepatology Gastroenterology and Transplantation Unit, ASST "Papa Giovanni XXIII", Bergamo, Italy

4 Department of Biomedical, Surgical and Dental Sciences, University of Milan, Milan, Italy

Corresponding author

Luca Elli MD, PhD

Center for Prevention and Diagnosis of Celiac Disease

Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico

Via F. Sforza 35

20122 Milano, Italy

Email luca.elli@policlinico.mi.it

Fax 0039 02 55031; phone number 0039 02 55033418

Financial support: none; Conflict of interest: none

To the editor

A strict life-long Gluten-Free Diet (GFD) is the only therapy for celiac disease (CeD) ⁽¹⁾. GFD is considered an untouchable dogma but some concerns about its use (strictness and chronicity) and the possible development of gluten tolerance, are objectively real ⁽²⁾.

Several studies investigated this issue. A first attempt evaluated the re-introduction of gluten and demonstrated that 11% of patients tolerated it ⁽³⁾, similarly to three recent studies. The first showed that 21% cases no villous atrophy occurred after a median of 14 years on a gluten containing diet ⁽⁴⁾. In the second one 19% of patients presented a wrong CeD diagnosis, according to the current diagnostic criteria and 38% reported gluten consumption; among them 40% did not show duodenal atrophy ⁽⁵⁾. Finally, a third study investigated 63 patients after 30 years from the initial diagnosis of CeD; 34(54%) abandoned their strict GFD without an histological occurrence of CeD in 20(59%) cases ⁽⁶⁾.

These data demonstrate that a large part of CeD patients spontaneously abandon the GFD and a relevant percentage of CeD patients seem tolerate gluten re-introduction (figure 1).

Furthermore, the tolerable amount of gluten is still controversial ⁽⁷⁾ and recent findings regarding the safety of occasional gluten consumption in patients with CeD casts a shadow over the need for GFD strictness in poorly symptomatic patients ⁽⁸⁾.

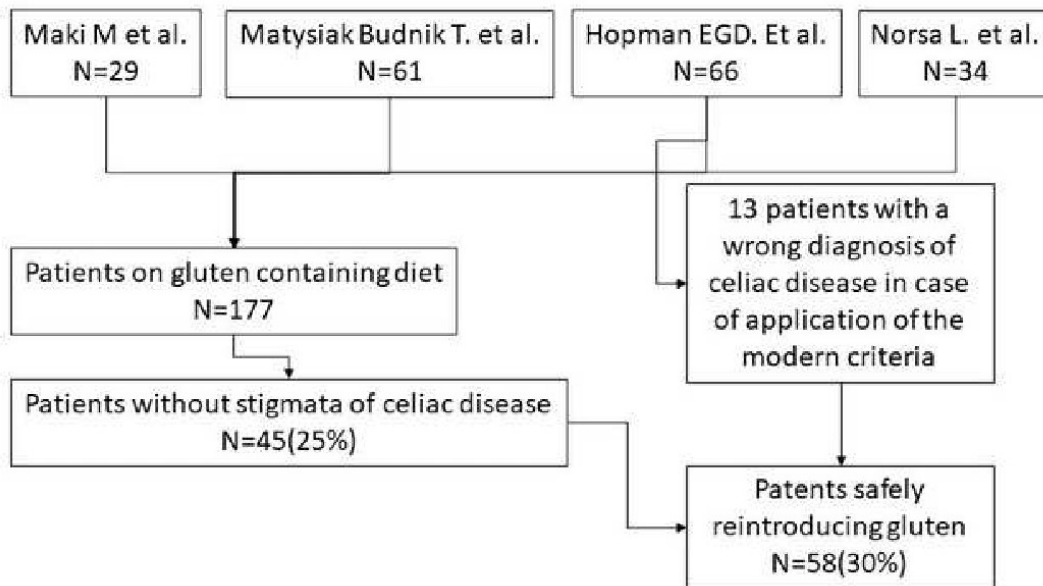
In the era of personalized medicine, it might be time to reconsider some “dogmas”: a monitored gluten re-introduction might be planned and could result in freeing some celiac patients from GFD, increasing their quality of life.

References

1. Elli L, Ferretti F, Orlando S, et al. Management of celiac disease in daily clinical practice. *Eur J Intern Med* 2019; 61:15–24.
2. Itzlinger A, Branchi F, Elli L, et al. Gluten-free diet in celiac disease—forever and for all? *Nutrients* 2018; 10.
3. Mäki M, Lähdeaho ML, Hällström O, et al. Postpubertal gluten challenge in coeliac disease. *Arch Dis Child* 1989; 64:1604–1607. <https://doi.org/10.1136/adc.64.11.1604>
4. Matysiak-Budnik T, Malamut G, De Serre NPM, et al. Long-term follow-up of 61 coeliac patients diagnosed in childhood: Evolution toward latency is possible on a normal diet. *Gut* 2007; 56:1379–1386. <https://doi.org/10.1136/gut.2006.100511>
5. Hopman EGD, Von Blomberg ME, Batstra MR, et al. Gluten tolerance in adult patients with celiac disease 20 years after diagnosis? *Eur J Gastroenterol Hepatol* 2008; 20:423–429. <https://doi.org/10.1097/MEG.0b013e3282f4de6e>
6. Norsa L, Branchi F, Bravo M, et al. Celiac disease 30 years after diagnosis: Struggling with gluten-free adherence or gaining gluten tolerance? *J Pediatr Gastroenterol Nutr* 2018; 67:361–366. <https://doi.org/10.1097/MPG.0000000000001995>
7. Bascuñán KA, Roncoroni L, Branchi F, et al. The 5 Ws of a gluten challenge for gluten-related disorders. *Nutr Rev* 2018; 76. <https://doi.org/10.1093/nutrit/nux068>
8. Elli L, Bascuñán K, Di Lernia L, et al. Safety of occasional ingestion of gluten in patients with celiac disease: A real-life study. *BMC Med* 2020; 18. <https://doi.org/10.1186/s12916-020-1511-6>

Figure legend

Figure 1. Findings of the studies investigating gluten reintroduction in CeD and proportion of patients with a safe gluten ingestion.



ACCEPT