

**Long-term prospective assessment of quality of life in celiac disease patients. Deterioration at four-years on treatment.** F. Nachman, M. Planzer del Campo; A. González; L. Corzo, H. Vázquez; C. Sfoggia, E. Smecuol; I. Pinto Sánchez; S. Niveloni; E. Sugai; HJ Hwang; R. Mazure; E. Mauriño; J. C. Bai. Department of Medicine; “Dr. C. Bonorino Udaondo” Gastroenterology Hospital; Buenos Aires, Argentina.

**Background:** The gluten-free diet (GFD) produces a positive short-term impact on quality of life (QoL) of patients with celiac disease (CD). However, a concern about the long-term outcome has been raised by cross-sectional studies.

**Aim:** Our objective in this prospective study was to assess QoL of patients for long-term after the initiation of treatment.

**Patients/methods:** We evaluated 34 newly diagnosed adult CD patients (median age: 39 yr; 32 females) and 70 sex-and age-matched healthy controls using a multidimensional approach based on self-administered questionnaires: the Short Form 36 Health Survey (SF-36), the Gastrointestinal Symptoms Rating Scale (GSRS) and the Beck Depression Inventory (BDI) at diagnosis, and at one-year and more than four-years (median: 53 months) after commencing treatment.

**Results:** At diagnosis, patients exhibited a significant alteration of all items of the three questionnaires compared with controls ( $p < 0.01$  to  $p < 0.0001$ ). One-year treatment produced a substantial improvement of most outcome measures ( $p < 0.04$  to  $p < 0.0001$ ), attaining comparable scores to healthy subjects ( $p = \text{NS}$ ). Compared to the one-year assessment for the overall population, the SF-36 questionnaire performed at four-years evidenced a deterioration of some items such as: social function ( $p < 0.0002$ ), role emotional ( $p < 0.005$ ), role physical ( $p < 0.002$ ), vitality ( $p < 0.0003$ ), mental health ( $p < 0.002$ ) and general health perception ( $p < 0.002$ ). Interestingly, most of them remain significantly higher than at diagnosis ( $p < 0.03$  to  $p < 0.0005$ ). While BDI scores impaired at four years ( $p < 0.002$ ) compared to the one-year assessment, no changes were detected in the most common GI symptoms assessed by the GSRS ( $p = \text{NS}$ ). Despite the long-term deterioration of BDI, the final score remained significantly better than those registered at diagnosis ( $p < 0.0006$ ). The long-term impairment of the patients' perception of QoL was mainly related to the deterioration of some parameters in patients non compliant with the treatment. In this context, social function ( $p < 0.02$ ), physical role ( $p < 0.04$ ), emotional role ( $p < 0.04$ ), general health perception ( $p < 0.002$ ), perception of diarrhea ( $p < 0.02$ ) and indigestion ( $p < 0.01$ ) and the BDI score ( $p < 0.002$ ) were significantly deteriorated in non compliant patients.

**Conclusions:** Our prospective multidimensional long-term assessment of QoL evidenced a deterioration of some outcome measures after the initial one-year normalization. The study suggests that the deterioration seems to be primarily associated to the effect of the degree of compliance with the GFD on the social sphere, the behavioral dimension of patients and some symptoms.