in a very early stage. Deposit's features are correlated with Marsh grading but independent from serum levels of anti-TG2 IgA.

Posters

PO1

INTESTINAL PRODUCTION OF ANTI-TISSUE TRANSGLUTAMINASE2 ANTIBODIES CORRELATES WITH GRADE OF VILLOUS ATROPHY

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Objectives and study: High titers of serum anti-tissue transglutaminase2 (anti-TG2) antibodies are present in the great majority of untreated celiac (CD) patients. These autoantibodies, are produced in celiac small intestinal mucosa even if the lesion is not visible, as in the case of potential CD patients. Our aim was to investigate in CD patients the relationship between mucosal production of anti-TG2 and the degree of injury measuring antibodies secreted into organ culture supernatants.

Methods: We enrolled 29 active CD patients and 70 potential CD patients with a grade Marsh 3 (M3) (M3a = 7, M3b = 11, M3c = 11) and a grade 0/1 (M0 = 33, M1 = 37) of mucosal lesion according to Marsh classification, respectively. All patients had high serum levels of anti-TG2 (>7 U/ml). Biopsy fragments obtained from all patients were cultured for 24 h with medium and anti-TG2 autoantibodies secreted into supernatants were measured by ELISA.

Results: High titers of anti-TG2 antibodies were secreted into culture supernatants (range 73–2000 U/ml; cut-off = 2.8 U/ml) from all active CD patients. The titer antibody gradually increased with the worsening of mucosal injury, that is from grade M3a to M3c lesion (Pearson $r = 0.6$, $p < 0.001$). Regarding potential CD patients, 66/70 produced anti-TG2 antibodies into culture supernatants with variable titers ranging from 4.2 to 1240.0 U/ml (mean + SD = 80.87 ± 192.9). Two of four negative patients were also negative for EMA analysis. The production did not correlate with grade of mucosal lesion (Pearson $r = 0.1$, $p = 0.2$); furthermore, there was no statistically difference between M0 and M1 lesions (M0 median = 26.43; M1 median = 23.14).

Conclusions: In celiac disease, mucosal production of anti-tissue transglutaminase2 correlate with the grade of villous atrophy. However, in potential CD there is no difference between normal mucosa and infiltrative lesions.

PO2

GELATIN TANNATE AS TREATMENT FOR ACUTE DIARRHEA IN CHILDREN: A PROSPECTIVE, RANDOMIZED, PARALLEL STUDY

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Background and aims: Oral rehydration therapy is the only treatment recommended by the World Health Organization in acute diarrhea in children. The aim of this study was to compare the efficacy and safety of a therapy with gelatin tannate plus oral rehydration versus oral rehydration alone in children with acute gastroenteritis.

Study design: Prospective, randomized, open and parallel study performed in two Pediatric Services of tertiary referral hospitals. The study included 60 patients, ages 3–36 months (mean 21.9 ± 12.3), with acute gastroenteritis: 29 received an oral rehydration solution (OR), 31 an oral rehydration solution plus gelatin tannate (OR + G). The primary outcomes evaluated were: the number of bowel movements after 48 and 72 h after initiating treatments. Secondary outcomes were: duration of diarrhea (days), stool characteristics and adverse events. Other clinical variables, as weight, fever, vomiting, appetite and the acceptability of the two treatments were also recorded.

Results: The treatment groups were comparable in terms of age, duration of diarrhea, number of stools and concomitant symptoms. No significant difference was found in the number of bowel movements between the 2 groups 48 h after initiating treatment (2.6 ± 1.7 in the OR + G group vs 3.2 ± 2.2 in the OR group; $p = 0.29$), although OR + G group showed a significant improvement of stool consistency (p: 0.02). At 72 h a significant reduction of bowel movements was reported in the OR + G group compared to oral rehydration only (1.07 ± 1.3 vs. 2.05 ± 1.7; $p = 0.01$). No significant differences were found in the average duration of gastroenteritis (4.5 ± 0.9 days in the OR group, 3.0 ± 0.8 days in the OR + G group; $p = 0.14$). No adverse events were reported in the two groups. Tolerability was good in both groups of patients.

Conclusions: In our study, gelatin tannate used as adjuvant therapy to oral rehydration solution in infants and children with acute diarrhea was associated with a significant decrease in the number of stools at 72 h with an early improvement in the consistency of stools. The safety and tolerance of the study drug were good.