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THE RELATIONSHIP BETWEEN PSYCHOSOMATIC DISORDERS AND METABOLIC PROCESSES OF THE GASTRODUODENAL ZONE IN HP-POSITIVE PEPTIC ULCER PATIENTS

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The aim was to assess the relationship between the degree of psychosomatic disorders in peptic ulcer of the duodenum (PUD) pts and metabolic processes in the mucosa of the gastroduodenal zone (GDZ).

The study involved 127 HP-positive PUD pts, mean age 37.8 ± 4.8 years. Psychosomatic disorders were assessed on the basis of analysis of questionnaires by tests of mental adaptation to stress effects, stress resistance, anxiety scale and quality of life of patients. In order to assess the function of mucus formation GDZ content determined N-acetylneuraminic acid (NANA) and fucose concentration in serum and their excretion in the urine. Activity of oxidative stress measured by MDA-reagents, hydrogen peroxide, antioxidant defense – for the activity of superoxidodismutase (SOD).

In PUD pts established growth NANA content in blood serum, which correlated with physical ($r = -0.56$) and psychological ($r = -0.72$) quality of life and has a direct relationship with anxiety ($r = +0.64$). One of the manifestations of lesions of the mucous membrane GDZ is fucoproteins metabolism, which is increase in serum. The level of excretion in urine had a relationship with anxiety, stress resistance level ($r = -0.49$; $r = -0.56$) and correlation with the psychological quality of life index ($r = -0.71$). In PUD pts increased degree of oxidative stress, which confirmed the likely growth of MDA-reagents and hydrogen peroxide. The established correlation between the studied parameters and the degree of stress resistance ($r = -0.62$; $r = -0.58$), anxiety ($r = -0.66$; $r = -0.82$) and direct contact with the psychological index quality of life ($r = +0.69$; $r = +0.78$).

Metabolic processes in the mucosal barrier in HP-positive PUD pts depend on the degree of anxiety, stress resistance, psychological and emotional adaptation, affecting the quality of life of pts.

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A LOWER QUALITY OF LIFE IN PATIENTS WITH FUNCTIONAL BOWEL DISORDERS COMPARED TO THOSE WITH GASTRIC DYSPEPSIA

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A low health-related quality of life (HRQL) was reported in subjects with functional gastrointestinal disorders such as functional bowel disorders (FBDs), and gastric dyspepsia (GD). FBDs, such as lactose intolerance, small intestinal bacterial overgrowth, alterations of gastrointestinal transit time, could be investigated with hydrogen breath test (H₂BT). The first non-invasive test to investigate GD is urea breath test (C¹³UBT), to exclude HP infection. Short Form Health Status Survey (SF36) demonstrated internal consistency, construct validity and concurrent validity when applied to patients (pts) with significant bowel dysfunction.

To compare, by SF36, HRQL of pts affected by FBDs or GD.

We enrolled, from the Gastroenterology unit of Policlinico Gemelli in Rome, 96 pts (61F/35M; age mean 40 ± 15 years). Fifty pts underwent H₂BT and 46 C¹³UBT. HRQL was analyzed based on SF36 scores and component summary scores.

Mean values of all items analyzed by SF36 were lower compared to general Italian population (nv 50). Both groups were homogeneous for sex and age. A significant lower Mean Mental Health Index (MHI) was observed in FBDs compared with GD: 33.9 ± 11.7 versus 45.1 ± 8.9 (mean difference -11.2 , 95% CI -18.4 , -4.0 ; $p = 0.004$). Moreover a significantly higher Physical Health Index (PHI) was observed for FBDs compared with GD: 49.0 ± 8.1 versus 42.1 ± 8.9 (mean difference 6.9 , 95% CI 1.0 , 12.8 ; $p = 0.024$).

GI diseases which can be analyzed with BT are related with lower SF36 scores. Our preliminary results suggest that pts affected by FBDs have a lower MHI and an higher PHI compared with those with GD. This difference is probably due to the fact that pts who undergo C¹³UBT often have a organic disease below, while pts with FBDs have a more complex physiopathological framework, in which may be implicated an altered perception of disease.

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HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH FUNCTIONAL GASTROINTESTINAL DISORDERS

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A low health-related quality of life (HRQL) was reported in subjects with functional gastrointestinal disorders (FGDs). Lactose intolerance, other sugars intolerances, small intestinal bacterial overgrowth, alterations of gastrointestinal transit time, dyspepsia are very common in clinical practice, and could be investigated with breath test (BT) analysis. The Short Form Health Status Survey (SF36) demonstrated internal consistency, construct validity and concurrent validity when applied to patients (pts) with significant bowel dysfunction. To assess, by SF36, the impact of FGDs on HRQL of pts that perform BT. We enrolled, from the Gastroenterology Unit of Policlinico Gemelli in Rome, 96 pts (61F, 35M; age mean 40 ± 15 years) with FGDs who underwent H₂BT and/or C¹³ Urea BT. HRQL was analyzed on SF36 scores and component summary scores. For each item, the mean difference and 95% confidence interval (CI) with corresponding two-tailed *p*-values between the pts and the general population were calculated by means of a *z*-test. All items analyzed by SF36 were lower compared to the normal values for the general Italian population. Mean Mental Health Index (MHI) and Physical Health Index (PHI), the two main scores of SF 36, were both under the normal values for the general population: MHI 39.1 ± 11.8 (nv 50, mean difference -10.9 , 95% CI -15.0 , -6.7 ; $p < 0.001$); PHI 45.8 ± 9.0 (nv 50, mean difference -4.2 , 95% CI -7.4 , -1.1 ; $p = 0.010$). Pts submitted to BT showed a lower SF36 scores compared to general population. Therefore FGDs have a significant impact on HRQL of pts in particular this kind of pts showed a significant reduction of MHI. SF36 could provide a useful adjunct to current methods of evaluating treatment outcomes for FGDs, and potentially other disorders.

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HELICOBACTER PYLORI ERADICATION IN THE ELDERLY PATIENTS: THE ERADICATION RATES AND ABNORMAL GASTROINTESTINAL RESPONSES

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Background/Aims: *Helicobacter pylori* (*H. pylori*) infection is closely related with a wide range of gastrointestinal disease. One-week triple therapy is currently considered as the gold standard for the treatment of *H. pylori* for all ages. Because of increasing life expectancy, the demand for the eradication of elderly are also increased. But abnormal gastrointestinal responses are major limitations in elderly patients.

The aim of our study was to evaluate the eradication rates and identify the abnormal response rates between the younger and the elderly patients.

Methods: Four hundred and twelve patients with *H. pylori* infection between January 2011 and April 2013 were included (mean age: 46.7 years; range 17-83). Among 412 patients, 65 (16%) patients were older than 70 years.

After 1 week of *H. pylori* eradication triple therapy (Pantoprazole 40 mg, clarithromycin 500 mg, amoxicillin 1 g bid), we evaluated the eradication rates and abnormal gastrointestinal responses (diarrhea, bloating, constipation, abdominal pain, borborygmus, flatulence, stool frequency, belching and nausea) and severities at 1 and 4 weeks after completion of treatment.

Results: The overall eradication rate was 77.9%. The eradication rate was higher in the younger age group, but not statistically significant (82.3% vs 75.9%; $p = 0.06$). The incidence of abnormal gastrointestinal response rates were similar (14.1% vs 15.3%; $p = 0.09$), but high grade (severe) abnormal responses were more notified at the elderly group (7.56% vs 11.9%, $p = 0.006$) at the first week after eradication.

Conclusions: In elderly patients, *H. pylori* eradication rates were not inferior to younger age group. Except some high grade abnormal gastrointestinal response, Overall abnormal responses rate are similar in the both group. So If we carefully monitor the abnormal response, we should strongly consider the eradication in the elderly group.