

iterranean countries. As in most European studies, the independent prognostic value of *TEL/AML1* is in doubt, because it is closely associated with other favorable factors. In this series, the modification of the therapeutic regimen (ie, omission of the SR arm) may be responsible for the similar outcome in *TEL/AML1*⁺ and *TEL/AML1*⁻ cases, because it seems to lower the relapse risk for all children with ALL.

BEHAVIORAL VARIABLES IN FUNCTIONAL DYSPESIA: THE TYPE A BEHAVIOR PATTERN, SYMPTOMS OCCURRENCE, AND EFFECTIVENESS OF PHARMACOLOGIC TREATMENT IN SCHOOL-AGED CHILDREN

Submitted by Igor Radziewicz-Winnicki

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INTRODUCTION: Functional dyspepsia (FD) is the most prevalent type of abdominal pain. Several organic disorders that result in FD have been identified, whereas psychological trials have suggested that patients with functional gastrointestinal disorders may present behavioral disorders simultaneously. Defining the relationship between common personality aspects, type A and/or type B behavioral patterns (TABPs/TBBPs), and coexisting symptoms as well as their change during FD treatment might be helpful in establishing focused therapy strategies, including appropriate psychological interventions.

OBJECTIVE: Our goal was to evaluate the grade of TABPs in children with FD and FD subtypes to reveal correlations of behavioral patterns and experienced symptoms and to assess the relationship between analyzed factors and symptom relief during therapy.

METHODS: A total of 66 children (aged 11–18 years) were diagnosed with FD following the Rome II criteria. The control group consisted of 86 healthy children who denied recurrent abdominal pain. In all children, severity of 10 dyspeptic symptoms was measured with the FACES Pain Rating Scale and the created visual-analog Dyspepsia Symptoms Questionnaire. Psychological evaluation was carried out by using the Type A/B Behavior Scale for Children and Adolescents (TAB) by Ogińska-Bulik and Juczyński. All patients received typical treatment for 4 weeks. After 8 weeks, children were asked to complete the symptoms questionnaires again.

RESULTS: The general TABP pattern was significantly decreased in the FD group compared with the controls ($P = .0016$), especially in boys. Moderate or extreme TABP was diagnosed in 4.2% of the boys with FD in comparison with 29.7% of the male controls; 66.7% of the boys with FD (vs 24.3% of the controls) and 37.2% of the girls with FD (vs 22.5% of the controls) met

criteria for moderate or extreme TBBP. Boys with ulcer-like FD revealed scores lower than those of the controls on total TABP ($P < .001$) and all of the TABP subscales: competition, impatience, sense of time urgency, and hostility. Correlation analysis exposed the positive relationship between total TABP, competition, and hostility with dysmotility-like symptoms. Sense of time urgency and total TABP correlated negatively to the pain. During the therapy observation, hostility was conducive to increasing most of the dyspeptic symptoms ($P < .037$), and competition was related to the nausea release in boys and to aggravation of heartburn and feeling full long after eating in both genders. The sense of time urgency was related to belching intensifying.

CONCLUSIONS: The behavioral pattern varied in the FD and control groups. The children with FD were more likely to present a TBBP than TABP, which is strongly restricted, especially in boys with ulcer-like FD.

1. The TBBP constituents are connected to dysmotilities, whereas reduced TABP compounds are more common among pain-suffering patients.
2. Behavioral pattern influences efficacy of FD treatment: behavioral compounds centered on emotions are conducive to increase dysmotilities, whereas behaviors connected with defeating stress situations encourage pain-symptom aggravation.

DOES INTRAFAMILIAL SPREAD PLAY A ROLE FOR *HELICOBACTER PYLORI* INFECTION IN CHILDREN?

Submitted by Eleftheria Roma

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INTRODUCTION: Acquisition of *Helicobacter pylori* (Hp) infection in children occurs mainly in those under 5 years of age.

OBJECTIVE: Our aim was to investigate intrafamilial spread of Hp infection.

METHODS: One hundred symptomatic children without previous eradication treatment were investigated by gastroscopy and the ¹³C-urea breath test (UBT). All family members of each index patient were investigated by using the UBT. Infected members were estimated according to UBT results, and for those members who were UBT-negative and had recently received eradication therapy after confirmation of infection by endoscopy, the previous positivity was taken into account.

RESULTS: Hp infection was identified in 44 (44%) of 100 symptomatic index children. There was no statistical

difference between Hp⁺ and Hp⁻ index children concerning demographic factors except age, which was higher in Hp⁺ index children ($P = .009$). In all Hp⁺ index children (100%) and in 71.4% of Hp⁻ children, at least 1 more family member was infected ($P < .001$); in all cases (100%) at least 1 parent in the group of Hp⁺ index children, compared with 69.6% in Hp⁻ index children ($P < .001$), was infected. The rate of infected siblings of the Hp⁺ index children was 43.2%, and that in the Hp⁻ group was 3.6% ($P < .001$). There were more infected mothers in the Hp⁺ index children group (83.7% vs 50% in the Hp⁻ group; $P = .001$) and more infected fathers (76.7% vs 56.4%, respectively; $P = .035$).

CONCLUSIONS: The identification of at least 1 more infected member in each family of Hp⁺ index patients, including a parent in all cases, strongly indicates family as the main source of infection for children and confirms the hypothesis of intrafamilial spread of Hp.

THERAPEUTIC EFFECT OF A MAGNESIUM-ENRICHED FORMULA ON INFANTS WITH CONSTIPATION

Submitted by Yvan Vandenplas

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INTRODUCTION: Infant constipation is a frequent condition in formula-fed infants.

OBJECTIVE: Our goal was to study the effectiveness of magnesium-enriched formula in relieving constipation in infants.

METHODS: A prospective randomized, clinical trial was performed with infants with constipation fed with a magnesium-enriched formula, Novalac-IT (IT group) in comparison with 20% strengthened formula (S group). Enrolled subjects had difficulties with defecating, hard stools, or low frequency of defecation (≤ 4 times per week).

RESULTS: Ninety-three infants (47 boys; mean age: 3.8 ± 1.7 months) were included because of hard consistence of (50.5%), low frequency of (44.1%), and painful (33.3%) defecation. Statistically significant improvement was observed after 4 and 8 weeks of intervention in the IT group ($P = .014$ and $P < .001$, respectively). In the IT group, significantly more infants were symptom free at 4 weeks (82.9% vs 50%; $P = .029$) and 8 weeks (89.1% vs 54.1%; $P < .001$). Increase of stool weight was significant in the infants in the IT group after 4 and 8 weeks ($P = .048$ and $.029$, respectively).

CONCLUSIONS: A magnesium-enriched formula improves constipation in formula-fed infants.

DOUBLE-BLIND TRIAL OF FORMULA IN DISTRESSED AND REGURGITATING INFANTS

Submitted by Yvan Vandenplas

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INTRODUCTION: Many parents seek medical help because of frequent regurgitation and inconsolable crying of their formula-fed infant.

OBJECTIVE: We aimed to assess the effectiveness of special formulas in distressed and regurgitating infants.

METHODS: We included 12 consecutive infants in a prospective, randomized, single-blinded (parents), cross-over trial (6 infants were started on G1 [80/20 casein/whey, tapioca starch, and locust bean] for 2 weeks and then switched for 2 weeks to G3 [partial whey hydrolysate, tapioca starch, and locust bean]; for the other 6 infants, the order of the formulas was opposite). Infants were exclusively formula fed, were crying for >3 hours/day for at least 3 weeks, and regurgitated several times after each feeding. Before inclusion, all of them had been given ≥ 3 different commercialized AR formulae, formulae for digestive comfort, and at least 1 extensive hydrolysate without success. All infants had been treated without success with a prokinetic agent (domperidone/cisapride) and an acid-blocking drug (H₂-receptor agonist/proton-pump inhibitor).

RESULTS: Gastric emptying time, as evaluated with a ¹³C acetate breath test, was 117.1 ± 18.3 minutes with Novalac-AR (80/20 casein/whey and corn starch), 104.5 ± 15.5 minutes with G1, and 79.2 ± 14.0 minutes with G3 ($P < .001$ [Friedman test]). The mean number of regurgitations per day was 5.1 ± 1.2 with G1 and 1.8 ± 1.2 with G3 ($P = .002$). Quality of life, as assessed by the parents in a diary, was 4.20 ± 1.79 with G1 and 2.10 ± 0.74 with G3 ($P = .005$). The mean duration of crying per day was 84.5 ± 50.1 minutes with G1 and 26.7 ± 18.1 minutes with G3 ($P = .003$).

CONCLUSIONS: The cross-over design protected for bias. G3 scored better than G1 for all parameters evaluated and decreased regurgitation and infant distress significantly.

General Pediatrics

PEDIATRICIANS' AWARENESS OF AND ATTITUDES ABOUT OTITIS MEDIA: RESULTS OF A MULTINATIONAL SURVEY

Submitted by Adirano Arguedas

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