

vated folate concentrations) toward a profile observed in cobalamin-replete older children and adults. Thus, high MMA and tHcy levels, reported for a large fraction of infants, do not reflect immature metabolism but, rather, insufficient cobalamin to fully sustain cobalamin-dependent reactions. Clinicians and researchers should address the possible developmental and clinical consequences of metabolic evidence of cobalamin deficiency in infants.

CENTRAL OBESITY IS THE MAJOR RISK FACTOR FOR FAILURE OF OBESITY MANAGEMENT DURING CONSOLIDATION PHASE IN CHILDREN

Submitted by Adel El Tajuri

Adel El Taguri^{a,b}, Myriam Dabbas-Tyan^a, Claude Ricour^a
^a*Service de Gastroenterologie et Nutrition Pediatrique, Hopital Necker Enfants Malades, Paris, France;* ^b*Department of Family and Community Medicine, Al-Fateh University, Tripoli, Libya*

INTRODUCTION: A proportion of obese children who are treated with a multidisciplinary approach with behavior modification and parental involvement show no response to the consolidation phase of treatment.

OBJECTIVE: Our goal was to identify possible risk factors that led to failure of obesity management in children who were attending an equipped, busy, specialized outpatient clinic.

METHODS: We performed a case-control study in which cases were those whose conditions failed to respond to current multidisciplinary management as judged by no decrease in BMI *z* score. Controls were those who responded to treatment (lower subsequent BMI *z* scores).

RESULTS: Of the 519 children, 416 (80.2%) had BMI *z* scores of >3. Management was successful in 85% of the patients. In bivariate analysis, risk factors were age of <4 years (odds ratio [OR]: 4.00 [95% confidence interval (CI): 1.08–14.70]), previous obesity management (OR: 2.18 [95% CI: 1.10–4.32]), triglyceridemia (OR: 2.01 [95% CI: 1.10–3.65]), and higher abdominal fat content as measured directly by dual-energy radiograph absorptiometry (OR: 1.09 [95% CI: 1.00–1.19]) or relative to thigh (waist/hip index) (OR: 2.67 [95% CI: 1.13–6.72]). Duration of obesity, the initial BMI *z* score, and gender were not predictive of treatment failure. In multivariate analysis, central obesity was the single-most important factor. In more hierarchical conceptual framework, factors retained were maternal obesity (OR: 2.44 [95% CI: 1.22–4.86]), previous management of obesity (OR: 2.21 [95% CI: 1.11–4.37]), and waist/hip index (OR: 3.35 [95% CI: 1.18–9.49]).

CONCLUSIONS: We propose a model in which centrally obese children with obese mothers who have high triglyceride levels are more likely to show resistance to reversal of the pathologic process of excess fat accumulation. Central obesity is a well known correlate of increased morbidity.

NUTRITIONAL STATUS IN CYSTIC FIBROSIS

Submitted by Maria Fotoulaki

Maria Fotoulaki, Paraskevi Panagopoulou, Eleni Kotsi, Sanda Nousia-Arvanitakis
Fourth Pediatric Department, Papageorgiou Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece

OBJECTIVE: We aimed to investigate the nutritional status of patients with cystic fibrosis (CF) in relation to their clinical manifestations.

METHODS: In 68 patients with CF (aged 2–38 years), body weight, height, and composition (bioelectrical impedance analysis), respiratory function, *Pseudomonas* colonization, pancreatic function, CF-related diabetes mellitus (CF-DM), and genotype were measured.

RESULTS: BMI was <5th percentile in 12 patients (18%), between the 5th and 10th percentiles in 6 (7%), between the 10th and 85th percentiles in 41 (60%), between the 85th and 95th percentiles (overweight) in 4 (6%), and >95th percentile (obese) in 5 (7%). Among 18 patients with a BMI at <10th percentile, 18 (100%) had pancreatic insufficiency, 16 (89%) had *Pseudomonas*, and 7 (38%) had CF-DM. Among 41 patients with a BMI in the 10th to 85th percentile, 37 (90%) had pancreatic insufficiency, 28 (82%) had *Pseudomonas*, and 9 (22%) had CF-DM. Among 9 patients with a BMI at >85th percentile, 3 (33%) had pancreatic insufficiency, 1 (11%) had *Pseudomonas*, and none had CF-DM. Forced expiratory volume in 1 second was significantly better among overweight patients than among patients with a low or normal BMI ($P < .05$). In addition, forced expiratory volume in 1 second correlated with BMI ($P = .014$), age ($P = .029$), and percent free fat mass ($P = .039$). Overweight/obese patients were homozygotes for mild mutations.

CONCLUSIONS: Most patients with CF had an optimal nutritional status. A small percentage were overweight or obese, especially those with pancreatic sufficiency and carriers of mild mutations. These patients had mild-to-moderate lung disease and were less likely to be colonized with *Pseudomonas* or have liver disease.

TRANSMISSION OF HELICOBACTER PYLORI INFECTION IN MOTHER-INFANT PAIRS

Submitted by Selda Fatma Hizel Bulbul

Hizel Bulbul Selda^a, Ali Ozden^b, Fatos Tanzer^c, Ucler Kisa^a, Derya Buyukkayhan^b, Emine Dibek Misirlioglou^a, Ozgul Kisa^d

^a*Department of Pediatrics, School of Medicine, Kirikkale University, Ankara, Turkey;* ^b*Department of Gastroenterology, School of Medicine, Ankara University, Ankara, Turkey;* ^c*Department of Pediatrics, School of Medicine, Cumhuriyet University, Sivas, Turkey;*

^dDepartment of Microbiology, Gulhane Medical School, Ankara, Turkey

INTRODUCTION: Various pathways, such as person-person, fecal-oral, and oral-oral transmission, play a role in transmission of *Helicobacter pylori* infection. It can be transferred from mother to infant in either the perinatal or postnatal periods.

OBJECTIVE: The aim of this prospective study was to determine the course of *H pylori* infection in mother-infant pairs in early years of life.

METHODS: Forty-eight mother-child pairs were followed for 12 months. *H pylori* and hepatitis A virus immunoglobulin G levels were measured in maternal sera, infant sera, and breast-milk samples at birth and in breast-milk samples and infant sera at follow-up visits.

RESULTS: At birth, the seropositivity for *H pylori* was 81.25% and hepatitis A was 68.75% in breast milk and 95.8% in maternal and infant sera for both microorganisms. Although there was a decrease in seropositivities for both agents in both infant sera and breast milk at the age of 9 months, an increase was observed in the twelfth month.

CONCLUSIONS: High seroprevalence rates of *H pylori* and hepatitis A virus and similar monthly changes in seroprevalence could be indicators of the same transmission routes.

IMPACT OF ZINC SUPPLEMENTATION ON GROWTH: A DOUBLE-BLIND, RANDOMIZED TRIAL AMONG URBAN IRANIAN SCHOOLCHILDREN

Submitted by Nahid Masoodpoor

Nahideh Masoodpoor, R. Darakshan
Rafsanjan Medical Hospital, Rafsanjan, Iran

INTRODUCTION: The first study that linked zinc and growth was carried out in Iran and Egypt almost 3 decades ago. At the time, the circumstances leading to growth impairment secondary to zinc deficiency were believed to be unique in less developed countries. Multiple studies have been carried out to assess the effect of zinc supplementation on children's growth. The results of these studies have been inconsistent.

OBJECTIVE: The aim of this study was to investigate the impact of zinc supplementation on growth (weight and height) among schoolchildren who were underweight or had stunted growth.

METHODS: Our study was a randomized, double-blind, placebo-controlled trial of 90 Iranian urban schoolchildren (50 boys and 40 girls; 7–12 years old) who were underweight or stunted and were supplemented with 10 mg of zinc or placebo on school days for 6 months. Variables were weight and height.

RESULTS: Significant effects on weight gain (2.037 ± 1.240 vs 1.55 ± 0.64 kg; $P = .0167$) and height (2.030 ± 1.003 vs 1.403 ± 0.521 cm; $P = .0002$) in the children after zinc supplementation versus placebo administration, respectively, were seen over the 6-month period.

CONCLUSIONS: On the basis of this study, zinc supplementation improved growth in underweight or stunted children and should be considered for populations at risk for zinc deficiency, especially where there are elevated rates of underweight or stunting.

TEL/AML1+ ACUTE LYMPHOBLASTIC LEUKEMIA IN THE GREEK PEDIATRIC POPULATION

Submitted by Sophia Polychronopoulou

Stefanos Papadimitriou^a, Georgios S. Paterakis^b, Agapi Parcharidou^c, Anastasia Tsakiridou^a, Vassilios Papadakis^c, Sofia Papargyri^c, Anna Paissiou^c, Natalia Tourkantoni^c, Konstantinos Tsitsikas^c, Dimitris Pavlidis^c, Maria Georgiakaki^c, Sophia Polychronopoulou^a

^aHematology Laboratory and ^bSecond Flow Cytometry Laboratory, G. Gennimatas Athens Regional General Hospital, Athens, Greece; ^cDepartment of Pediatric Hematology/Oncology, Agia Sophia Children's Hospital, Athens, Greece

INTRODUCTION: *TEL/AML1*⁺ acute lymphoblastic leukemia (ALL) is considered to be a distinct nosological entity with excellent prognosis, but recent studies have indicated significant clinical heterogeneity.

OBJECTIVE: In this study, we attempted to estimate the incidence and clinical features of *TEL/AML1*⁺ ALL for the first time in a representative cohort of Greek pediatric patients.

METHODS: One hundred twenty children (<16 years old) diagnosed with ALL (107 of B-cell origin, 13 of T-cell origin) were screened for *TEL/AML1* with interphase fluorescence in situ hybridization by using a commercial probe set. All patients were treated as either standard risk (SR) or high-risk (HR) cases according to a modified BFM-95 (Berlin-Frenkfurt-Munster) protocol. Follow-up ranged between 5 and 87 months (median: 45 months).

RESULTS: Twenty-six patient (all of them will ALL of B-cell origin [24.3%]) were found to be positive for *TEL/AML1*. The presence of *TEL/AML1* was significantly associated with younger age and lower white blood cell count at diagnosis but not with remission duration or overall survival rate. The number of children who relapsed (1 vs 7) or succumbed (1 vs 5) was comparable between the *TEL/AML1*⁺ and *TEL/AML1*⁻ groups of children with ALL of B-cell origin.

CONCLUSIONS: The incidence of *TEL/AML1* in Greece seems comparable to that in other European and Med-

**TRANSMISSION OF *HELICOBACTER PYLORI* INFECTION IN
MOTHER-INFANT PAIRS**

Hizel Bulbul Selda, Ali Ozden, Fatos Tanzer, Ucler Kisa, Derya Buyukkayhan, Emine
Dibek Misirlioglou and Ozgul Kisa

Pediatrics 2008;121;S110

DOI: 10.1542/peds.2007-2022YY

**Updated Information &
Services**

including high resolution figures, can be found at:
http://pediatrics.aappublications.org/content/121/Supplement_2/S110.3

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):

Fetus/Newborn Infant

http://www.aappublications.org/cgi/collection/fetus:newborn_infant_sub

Infectious Disease

http://www.aappublications.org/cgi/collection/infectious_diseases_sub

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:

<http://www.aappublications.org/site/misc/Permissions.xhtml>

Reprints

Information about ordering reprints can be found online:

<http://www.aappublications.org/site/misc/reprints.xhtml>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

TRANSMISSION OF *HELICOBACTER PYLORI* INFECTION IN MOTHER-INFANT PAIRS

Hizel Bulbul Selda, Ali Ozden, Fatos Tanzer, Ucler Kisa, Derya Buyukkayhan, Emine
Dibek Misirlioglou and Ozgul Kisa

Pediatrics 2008;121;S110

DOI: 10.1542/peds.2007-2022YY

The online version of this article, along with updated information and services, is
located on the World Wide Web at:

http://pediatrics.aappublications.org/content/121/Supplement_2/S110.3

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2008 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

