

be considered as a protective factor against development of allergic illnesses. The goal of our study was to compare the prevalence of *H. pylori* infection in allergic patients and children without allergy.

Methods: The total patient sample consisted of 147 children aged 1-10 yrs (mean age 5.2): 58 children had allergy diagnosis and 89 were healthy children or children with minor health problems. Parents were asked to bring a faecal samples of the child and to fill out a questionnaire (demographic data, socio-economical factors). Presence of active *H. pylori* infection was detected by stool antigen test (*H. pylori* rapid test *Coris BioConcept, Belgium*). Statistical analysis: χ^2 test, log regression. **Results:** The total prevalence of *H.pylori* infection was 7%(10/147). In the univariate analysis *H.pylori* positivity was significantly lower in allergic children compared to children without allergy: 1.7% (1/58) vs. 10% (9/89): $p=0.048$; OR 6.4 (CI:0.7-52). *H.pylori* positivity was significantly associated with a lower educational status of the mother ($p=0.01$). In logistic regression analysis the variable *having allergy* did not show significant association with *H.pylori* infection ($p>0.05$).

Conclusions: Lower *H.pylori* prevalence observed in children with allergy could rather be associated with some other factors (previous treatment, higher living standards). However, the role of *H.pylori* in *hygienic hypothesis* and development of allergic disease should be studied further.

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EFFECTS OF TRAFFIC AIR POLLUTION ON RESPIRATORY HEALTH AND ALLERGIES IN SCHOOLCHILDREN

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The objective of the study is to investigate gender differences in the respiratory effects of air pollution in schoolchildren. We studied 1397 schoolchildren from two locations in Egypt; Cairo city with high level of air pollution and Shbeen Al Koom in the Delta with low level of air pollution. Lung function testing was done by the Vitalograph spirometer. The Arabic version of ISAAC questionnaire was used (the International Study of Asthma and Allergies in Childhood). Air pollution measurements

were collected from the Government sites in both locations. Boys in Shbeen Al Koom had significantly ($p< 0.05$) higher lung function tests than boys in Cairo. There was no significant differences in lung function tests between girls in both locations. Children in Cairo had significantly ($p< 0.01$) higher prevalence rates of asthma, rhinitis and eczema than children in Shbeen Al Koom. The prevalence rates of ever rhinitis were 6% and 3% higher in boys and girls in Cairo compared with Shbeen Al Koom, respectively. Children who developed rash less than 2 years of age were 2% and 5% higher in boys and girls in Cairo compared with Shbeen Al Koom, respectively. The prevalence of other allergic symptoms were 2-3% and 3-5% higher in boys and girls in Cairo compared with Shbeen Al Koom, respectively. The present study shows the adverse respiratory effects of exposure to traffic air pollution on schoolchildren showing gender difference. The study will help to implement strategic health intervention programmes to improve the respiratory health of children.

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ARE TYPE 1 DIABETES CHILDREN AND ADOLESCENTS AT RISK FOR AN IMPAIRED BONE MINERALIZATION?

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Aim: Diabetic adolescents, particularly girls, often show poor metabolic control. The aim of this study is to investigate whether glycemic control (GC) during puberty has an influence on radial trabecular bone mineral density (BMD) at the final growth.

Methods: We studied 52 adolescent type 1 diabetes mellitus (DM1) (24 females) at the end of puberty. Median (range) age was 18.4 (17.2-24.8). Duration of diabetes ranged between 1.4-19.9 years (median 9.1). Trabecular BMD of the distal radius was investigated using peripheral quantitative computed tomography (XCT-2000, Stratec, Germany). Mean glycosylated hemoglobin (HbA1c) in the last 4 years (13.8 ± 3.9 measurements per patient) was calculated as GC parameter. We recruited 44 healthy controls (C) (32 females; similar age range).

Results: In males DM1 and C subjects had similar height, weight, body mass index (BMI), trabecular BMD and age-adjusted trabecular BMD values