

Summary

- The prevalence of *Helicobacter pylori* in the Czech republic showed a slight nonsignificant decline between 5 and 14 and 15 – 24 years and then a gradual increase with age up to the oldest groups studied. We did not show cohort phenomena. Gender differences in *Helicobacter pylori* positivity were not statistically significant. We demonstrated inverse correlation between socioeconomic position (degree of education, number of family members, residential density) and *Helicobacter pylori* positivity infection. We showed strong correlation between *Helicobacter pylori* positivity and own education, parenteral education level, especially mother's education. There were substantial differences in prevalence of *Helicobacter pylori* between groups of subjects defined by place of childhood living conditions. Smoking habits in particular are strongly related to risk of *Helicobacter pylori* positivity in adults.
- We observed a relatively strong and statistically significant negative association of *Helicobacter pylori* positivity with body height, which was most pronounced, and statistically significant, in the younger age groups. *Helicobacter pylori* positivity was also associated with a slightly lower body mass index in children below 15 years and with a higher mean body mass index in subjects over 15 years. Analyses of overweight and obesity showed a statistically significantly lower prevalence of overweight in *Helicobacter pylori* positive children and a higher prevalence of overweight and obesity in adults. The statistical interactions of *Helicobacter pylori* positivity with age in their effect on blood pressure and body mass index suggesting differential effects, and possibly also different mechanisms, by which Hp positivity is related to blood pressure and body mass index in different age groups.
- There was no significant difference of delta values between symptom free *Helicobacter pylori* positive persons and *Helicobacter pylori* positive patients with sole long-lasting dyspepsia. Thus our results do not support the hypothesis that gastric urea overproduction would be a causative factor originating symptoms in dyspepsia. There was no significant difference of dyspepsia rate between *Helicobacter pylori* positive and *Helicobacter pylori* negative persons.
- Overall prevalence of dyspepsia in Czech republic is 12.6%. 6.6% persons had dyspepsia as the only long-lasting symptom and 6% had dyspepsia associated with other co-morbidity. Prevalence of dyspepsia in the Czech Republic is comparable

with most data from Europe and lower compared with the USA. It is no doubt, that several social and demographic factors (place of residence, education, socio-economic status) play the role also in our population.