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## Rapid Responses published:

### ▼ **Prevalence of Helicobacter pylori infection in residential care centers for people with intellectual disability**

Joav Merrick, Mohammed Morad, Isack Kandel, and Søren Ventegodt (23 July 2004)

## Prevalence of Helicobacter pylori infection in residential care centers for people with intellectual disability

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2004



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[Re: Prevalence of Helicobacter pylori infection in residential care centers for people with intellectual disability](#)

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EDITOR---This communication in response to the recent paper on Helicobacter pylori (HP) in a French institution for neurologically handicapped children and adolescents (1).

Helicobacter pylori is one of the world's most common pathogens with a colonization of about 60 % of the general population (2,3). The mode of transmission of this pathogen is still not fully known, but the prevalence increases with age, disadvantaged socioeconomic conditions and poor living standards although most individuals never develop clinical disease (4).

A recent review (5) of the prevalence of HP in asymptomatic populations from Algeria, Israel, Saudi Arabia and Turkey revealed that the prevalence is similar to findings from developing countries with a high level of infection in childhood (40-70 %), which increases with age to 85-90 %. Israel had a low prevalence among children (10 %), but a rapid increase in the second decade of life to 39 % and reaching 79 % in persons over 60 years. Our study revealed an overall prevalence rate of 75 %.

### PREVALENCE STUDIES IN PEOPLE WITH INTELLECTUAL DISABILITY

Several case stories and a few larger scale studies have been published in the population of persons with intellectual disability (ID). Lubani et al. (6) from Kuwait described two siblings with developmental disability, cystic fibrosis and HP gastritis, Mauk (7) from Philadelphia described a 6 year old boy with severe mental retardation, rumination and HP infection. Dellavecchia et al. (8)

from Italy described a 14 year old patient with mental retardation and HP infection, who developed gastric carcinoma.

From Delaware (9) seven out of 61 children with profound neurologic impairment (prevalence of 11 %) had HP infection. A study from United Kingdom (10) analyzed stored sera from 424 hospital residents with severe learning disabilities and compared with 267 age and sex matched controls from the local non-residential population. The hospital residents under 40 years of age had a 87 % prevalence of HP compared with 24 % for controls, whereas the overall prevalence for all ages was 87 % for residents and 43 % for controls.

Lewindon et al. (11) studied 157 institutionalised Cantonese children (mean age 9.5 years) in Hong Kong with profound neurodevelopmental disabilities and found that 55.4% were HP positive compared to only 8% in an age-matched control group. A larger study (338 intellectually disabled and 254 controls) from Holland (12) found a prevalence of 5 % in children and 50 % in the elderly in the general population, whereas 83 % of the disabled and 27 % of the healthy employees were infected. The presence of HP was significantly associated with male gender, longer duration of institutionalization, an IQ below 50, rumination and a history of upper abdominal symptoms.

#### OUR STUDIES

We have been interested in the prevalence of *Helicobacter pylori* (HP) in the population of persons with intellectual disability (ID) in residential care centers in Israel (13,14). The first study (13) was conducted to determine the occurrence of HP infection in persons, who presented with severe dyspeptic symptoms and to monitor clinically the effect of treatment. Over a one year period a total of 43 persons (total population in care was 224) had severe dyspeptic symptoms and 42 persons (98 %, 26 males, 16 females, mean age 45 years, mean institutionalization 20 years) had HP. All patients were treated for one week, but six patients received an extra month of omeprazole due to persistent symptoms. At follow-up clinically all patients had improvement and only seven had still minor complains (83 % treatment success). Due to economic restraints we were not able to test all residents, but only those who presented with severe dyspeptic symptoms.

The second study (14) was performed as part of the yearly routine medical examination and a blood specimen was drawn for IgG antibodies to HP (ELISA). Of the 47 persons screened 75% (36 positive) were sero- positive. It was concluded that persons with intellectual disability in this residential care center had a high prevalence of *Helicobacter pylori* infection. The prevalence rate of this first study (75 %) in one residential care center for the population of persons with ID in Israel did not have a controlled group to compare with, but showed a high prevalence like the studies mentioned above. Compared with the general Israeli

population (5) our findings were higher for the younger ages, but the same for the older age group.

#### COMMENTS

From the literature review and our studies it seems that persons with intellectual disability in residential care are at a higher risk for *Helicobacter pylori* infection, especially after several years in care.

It was therefore of interest to read this recent study from France (1) of 112 children and adolescents in residential care, but in spite of the statement in the paper that the prevalence of HP was high (47 residents; 42%) we must state that it was low compared to our findings. Data on the prevalence in the general French population was not mentioned.

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