

## **Ethnic tropism of *Helicobacter pylori* infection towards Tamil ethnicity in a Sri Lankan sample**

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Some *Helicobacter pylori* strains are known to demonstrate ethnic tropism, e.g. East Asians are preferentially affected by more virulent strains, whereas, in the rest of Asia and Africa less virulent strains are more prevalent. We conducted the following study to assess the anti *H. pylori* IgG prevalence patterns in a cohort of symptomatic patients and asymptomatic volunteers.

A sample of 460 subjects, 241 symptomatic patients and 219 asymptomatic volunteers, residing in the Central Province were recruited. Sample selection was performed in a randomized manner and the investigators were blind to the ethnicity of the participants. Serum anti *H. pylori* IgG status was assessed by ELISA (Microtech 07BC1051) in venous blood. Fisher's Exact Test and Jonckheere test were used as the statistical tests.

The mean age of the sample was 48.86(SD 14.05) and 246 (53.5%) were males. The ethnic distribution of the sample was 424 (92.2%) Sinhalese, 21 (4.6%) Tamils and 15 (3.2%) Muslims. Among symptomatic patients 9 (3.7%) and asymptomatic volunteers 1 (0.5%) were positive for anti *H. pylori* IgG. Ethnic distribution of the anti *H. pylori* IgG sero-prevalence is as follows, Sinhala 4 (0.9%, 4 symptomatic and none among asymptomatic), Tamil 6 (28.6%, 5 symptomatic and 1 asymptomatic) and none among the Muslim ethnic group. The seropositivity (among symptomatic and asymptomatic) across the ethnic groups is statistically significant at 0.05. Post hoc analysis revealed that the ethnic groups Sinhala-Tamil is significantly different. Eight (80%) of the infected were in the 50 to 70 year age group and the rest was in the 30 – 40 year group. There was no significant difference in the sex distribution of the infected individuals. In conclusion, there is a marked predilection of the *H. pylori* infection towards the Tamil ethnicity, whereas, the prevalence rates among Sinhalese is markedly low. The reason for overall low prevalence of the infection in the sample could be the presence of Sinhala majority in the sample. The infection is predominantly seen in the above 50 year age group.

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