Investigating social-economic inequality in Helicobacter pylori prevalence in Ardabil Betwean the Ages of 35-70 in 2019

Abstract :

Background: Helicobacter pylori (H. pylori) infection, which takes place through various routes, is known as a major risk factor for gastric cancer in Iran. Nevertheless, the effect of socioeconomic factors on H. pylori prevalence is poorly assessed in Iran. This study analyses the socioeconomic inequalities and the risk factors associated with H. pylori prevalence in Iran.

Aim: to determine the Investigating of social-economic inequality in Helicobacter pylori prevalence

Materials and Methods: This cross-sectional survey was conducted using data from the PERSIAN cohort from June 2013 to February 2019 in Iran. A total of 16977 individuals in Ardabil aged between 35 to 70 years were included in the study. Respondents were classified based on the results of their stool tests for H. pylori and clinical records. To identify the risk factors associated with H. pylori prevalence and management, multilevel logistic regression models were used with random intercepts at household and community levels. Finally, concentration index and concentration curve were employed to assess the socioeconomic-related inequality on the prevalence of H. pylori.

Results: In this study, 70.4% of the participants were infected by H. pylori wherein the prevalence of H. pylori in women (71.2%) was higher than men (69.6%). Based on the multivariable logistic regression, there was a significant association between H. pylori infection and age, sex, level of education, non-communicable disease, and BMI groups. In addition, the prevalence of H. pylori infection among the richest group was 1.31 times lower than the poorest group. The results of the concentration index and concentration curve indicated that H. pylori is more prevalent among the disadvantaged economically groups.

Conclusions: The prevalence of H. pylori in Iran is above average compared to other developing countries. But there was significant inequality between the poor

and the rich. Appropriate strategies are needed to effectively manage the H. pylori incidence in different regions. The socio-economic and demographic factors, especially the poor and people with low levels of education should be also taken into account in order to decrease the rate of gastric cancer.

Key Words: Prevalence; Helicobacter pylori; Socio-economic status