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Relevance of Prevalence of *H. pylori* Infection, Age, Gender and Area of Residence to Gastric Cardia- and Gastric Non Cardia- Cancer in Ardabil

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Abstract

Introduction & Aim: *Helicobacter pylori* infection is one of the main risk determinants of gastric non-cardia cancer (GNCC), while gastric cardia cancer (GCC) has negative, positive or no association with *H. pylori* infection. Ardabil has the highest rates of *H. pylori* infection (89%) in Iran and one of the highest GCC rates in the world. The aim of present study was to analyze the associations of *H. pylori* infection, age and gender and area of residence with the risk of both the type of GC in the Ardabil.

Methods: A total of 259 patients who were of the rural and urban areas of Ardabil with non-atrophic gastritis (186), GCC (32), and GNCC (41) were participated in the study. Gastric biopsy specimens were taken, whether or not positive for rapid urease test and histopathological assessment was performed.

Results: 197 (76.1%) of patients were infected by *H. pylori*. Statistical analysis showed negative associations between the prevalence of *H. pylori* infection and the risk of the GCC or the GNCC [odds ratio =0.118 and 0.171, respectively; $P = 0.00$]. The GNCC was more prevalent in rural areas [OR = 2.18, $P = 0.039$]. Both the male gender and age ≥ 55 were significantly associated with the GCC [OR = 3.41 $P = 0.004$ and 13.20, $P = 0.00$, respectively] and the GNCC [OR = 2.33, $P = 0.026$ and 15.22, $P = 0.00$, respectively].



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Conclusion: This study showed that both male gender, age \geq 55 and rural life play a decisive role in the development of GCC and GNCC in Ardabil.

Key words: *H. pylori*, Age, Gender, GCC, GNCC, Ardabil.