Investigating the effect of several determinative factors on gastric cancer morbidity in Aghbulagh Village, Meshgin Shahr – Ardabil Province: A case control study

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Abstract

Background & Aim: Gastric cancer is the most common gastrointestinal cancer in Iran, especially in the northwestern part of the country. The purpose of this study was to investigate the factors affecting gastric cancer in the village of Aghbolagh MeshginShahr, Ardebil.

Methods: This study was carried out in the village of Aghbolagh located in Meshginshahr, Ardebil province in which gastric cancer was considered as a highly prioritized concern. Hence, a case-control study was designed on 21 patients with gastric cancer diagnosed during 2013-2015. This study included 63 control subjects who were randomly and purposefully selected from the adjacent villages and matched for age and sex. Odds ratio and logistic regression were calculated for probable risk factors.

Results: The mean age in the case group was 64.7 years and in control group was 61.1 years. In multivariate analysis, using logistic regression, educational level variables (OR = 0.38, CI = 0.15-0.88), family history (OR = 12.9, CI =2.5-72.5) and low fruit consumption (OR =3.06, = 0.49-9.89) were significantly different compared to control cases. Also, single-variable analysis revealed a significant difference for the intervals between meals (OR =3.5, CI =1.2-9.9).

Conclusion: Given the high odds ratio for family history variables, genetic studies are recommended to identify the involved genes and their interactions with the environmental factors in this region.

Keywords: Gastric cancer, stomach cancer, Case-control, Gastrointestinal Cancer, Community assessment