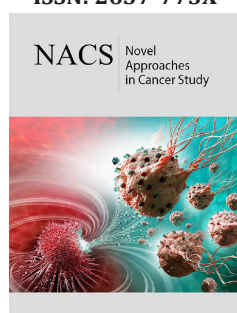


Review on Gastric Cancer

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Abstract

The first statistical analysis of stomach cancer incidence and mortality was in Italy, in the 18s century. Stomach cancer remains one of the leadings causes of cancer incidence and mortality globally.

Keywords: Gastric cancer; *Helicobacter pylori*, Current trends

Introduction

Epidemiology of stomach cancer varies depending on several parameters including demographic, histological and geographic features. On the other hand, the measures of the associations of gastric cancer with putative risk factors are relatively robust with regard to these variations [1]. Each year approximately 990,000 people are diagnosed with gastric cancer worldwide, of whom about 738,000 die from this disease, making gastric cancer the 4th most common incident cancer and the 2nd most common cause of cancer death [2]. However, its incidence rates in different geographical regions are distinctly varied. Etiologically, gastric cancer is associated with *Helicobacter pylori* infection, nutritional and lifestyle factors, and genetics [3,4]. This review provides an update of the current trends of gastric cancer. Overall, in most developed countries, its incidence has decreased substantially in the past five decades, with the disorder now the 14th most common neoplasm in the USA. However, in many developing countries, the incidence of gastric cancer has increased during the same period. In the Middle East, the incidence varies from high in Iran (age-standardized incidence rate 26.1 per 100 000 individuals per year) to low in Israel (12.5 per 100 000 per year) and Egypt (3.4 per 100 000 per year). Gastric cancer is the most common malignant disease in Iran and Oman [5-7].

Risk factors for gastric cancer

Most risk factors of gastric cancer are; environmental risk factors , *Helicobacter pylori* [8], Epstein-Barr virus [9], salt and salt-preserved foods Nitroso compounds, tea and coffee [10,11], obesity [12,13], smoking [14], alcohol [12], occupational exposures [12-16], socioeconomic status [17], gastric surgery, Abdominal irradiation, gastric ulcer [18], pernicious anemia [19], reproductive hormones [20,21]. Professions that are at higher risk of gastric cancer are minors, fishermen, machine operators, nurses, cooks, launderers, and dry cleaners as the main occupational exposures comprise dust, nitrogen oxides, N-nitroso compounds, and radiation [22-24].

Advantage and disadvantage of screening method for gastric cancer

- The advantage for *H pylori* serology test is being noninvasive and very low sensitivity but disadvantage is that it does not detect premalignant lesions.
- The advantage for serum pepsinogen testing is being noninvasive, acceptable sensitivity and specificity predicts premalignant lesions, but disadvantage is optimal cut-off values can be affected by several factors (age, sex, and race) and it requires endoscopy for confirmation.
- The advantage for upper gastrointestinal series is being noninvasive and moderate evidence but a disadvantage is exposure to radiation, and it requires endoscopy for confirmation.

D. The other very important screening methods for gastric cancer is endoscopy. The advantage is being most accurate and biopsy sampling can be performed by taking sample. The disadvantage is invasive and expensive and low evidence [21].

Conclusion

Gastric Cancer continues to be a major health problem in Europe, in the Asian-Pacific Region, in America, Middle East and Africa. From a worldwide perspective, almost 1 million patients have diagnosed with gastric cancer / year and 750.000 die from this aggressive cancer. Gastric cancer is one of the leading causes of cancer incidence and mortality globally. Different finding indicates that major factors of stomach cancer are *Helicobacter pylori* Infection, smoking and high salt intake. Several advances have been made in the diagnostic and therapeutic approaches however gastric cancer is still rampant in several countries in the world. The risk factors of gastric cancer can be changeable and unchangeable; early detection of both changeable and unchangeable gastric risk factors is vital in primary prevention. Changeable risk factors accounting for gastric cancer incidence are patient dependent (maintaining balanced diet, moderate alcohol intake, giving up smoking, and keeping normal weight) and doctor dependent (*H. pylori* eradication, considering NSAIDs). Unchangeable risk factors of Gastric cancer are occupational exposures, family history of gastric cancer, comorbidities, and history of partial gastrectomy.

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