

THE ALIMENTARY INVOLVEMENT IN THE LOCAL INCIDENCE OF MALIGNANT GASTRIC PATHOLOGY

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Abstract

Non est vivere, sed valere, vita – It's not everything to live, but to be healthy (Martial).

At the beginning of the third millennium, one of the most important human pathology is cancer. This disease is characterized by uncontrolled growth and spread of abnormal cells. Cancer can arise in many sites and behave differently depending on its organ of origin

Stomach cancer (also called gastric cancer) is the growth of cancer cells in the lining and wall of the stomach.

Key words: gastric cancer, alimentation, incidence, malignant

INTRODUSCTION

Incidence

According to the American Cancer Institute approximately 760,000 cases of stomach cancer are diagnosed worldwide each year. Incidence is highest in Japan, South America, Eastern Europe, and parts of the Middle East. Worldwide, stomach cancer is the second leading cause of cancer-related deaths.

The incidence of gastric cancer in Romania has a medium level compared to the world wide incidence, and it is lower then in the rest of South-East Europe. Even in this case, gastric cancer represents an important issue for the public health. In the Western part of Romania the incidence is higher and Bihor country is included in this high incidence area.

Risk factors

The most important factors that can lead to gastric cancer are the unhealthy nutrition and the consumption of alcohol.

Regarding the alimentation, it has been proved that most patients that developed stomach cancer had an alimentation full of fats, fried meat, fried fats and other similar foods. Also, these patients did not consume enough dairy products and vitamins (nutrients which protect the organism against cancer). Fats cause various disorders of the gastric secretion and the lack of milk accentuates the undesirable action of this secretion. In fact, this type of alimentation leads to obesity, which is a major risk factor in various types of medical affections. Also, aliments like smoked meats and pickles facilitate the occurrence of the stomach cancer. A diet high in salt and

nitrites and low in vitamins A and C increases the risk for stomach cancer. Other dietary risk factors include food preparation (e.g., preserving food by smoking, salt-curing, pickling, or drying) and environment (e.g., lack of refrigeration, poor drinking water). A diet high in raw fruits and vegetables, citrus fruits, and fiber may lower the risk for stomach cancer.

Added to these factors, alcoholism is another important cause that can lead to this type of cancer (almost 45% of the stomach cancer patients consumed exaggerate amounts of alcohol). Smoking is a serious risk factor in many conditions and in the case of stomach cancer, the studies show that around 90% of the patients are active smokers.

Objectives

The objective of this study is to evaluate the incidence of gastric cancer in Bihor country by identifying the risk factors that makes this country to become a high gastric cancer incidence area. Another objective is to indicate the correlation between the alimentary characteristic features and high gastric cancer incidence.

MATERIAL AND METHODS

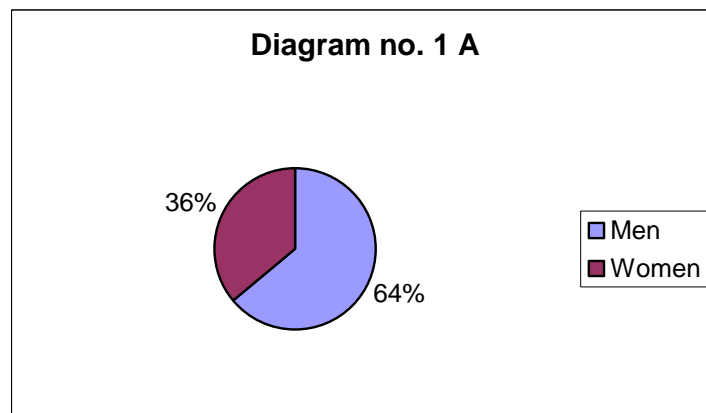
The study was realized after analyzing a lot of 50 patients that were diagnosed with gastric cancer in different evolution levels. They were hospitalized at the County Hospital, Surgery I department.

The methods used to process the results were statistical and comparative methods.

RESULTS

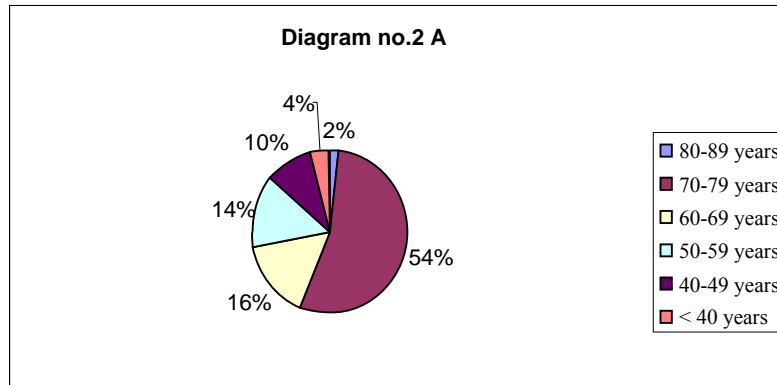
The analysis of the 50 gastric cancer cases indicates that 32 of the patients were men and 18 women. The sex ratio is: ♂: ♀ = 1,7 : 1.

Fig. 1. Patients gender



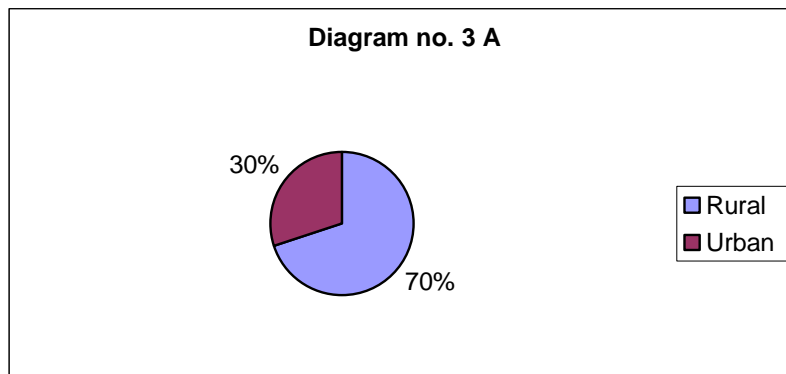
The incidence of gastric cancer from the age point of view was like this: 27 patients with an age between 70-79 years, 8 patients were between 60-69 years old, 7 patients had between 50-59 years, 5 patients were between 40-49 years old. One patient had over 80 years. What it is concerning is the existence of 2 patient younger then 40 years.

Fig. 2 Patients age



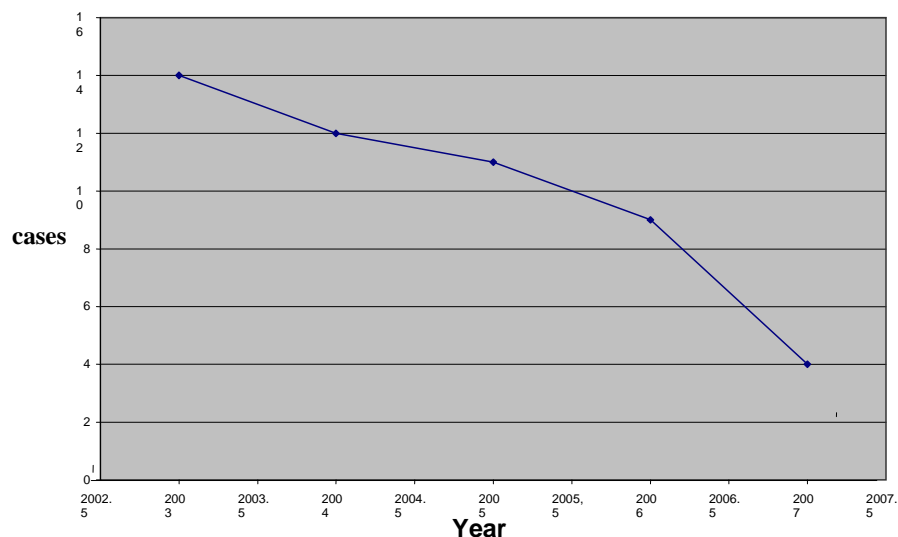
From the living medium point of view, 35 patients lived in rural medium, and the rest of 15 patients in cities.

Fig. 3. Patients provenience



The patients were studied between the year 2003 and 2007 (for an interval of 5 years). This offered the opportunity to study the incidence each year, and observing that the number of patients is decreasing. 2003: 14 cases, 2004: 12 cases, 2005: 11 cases, 2006: 9 cases, 2007: 4 cases (until the finishing point of the study).

Fig. 4. Incidence of gastric cancer / year



The alimentary habits in Bihor country are characterized by: using animal fat for preparing food; consuming animal fat preserved by smoking, salting, drying; using frequently firing when food is prepared; consuming spicy food; eating an important amount of fatty food.

CONCLUSIONS

The incidence of gastric cancer in Bihor country is 2.9/100000.

Men present a bent for gastric cancer because of genetic factors, but mostly because they eat more than a woman and so they ingest more neoplastic elements. Gastric cancer incidence is higher in population after the age of 50, when the negative effects of an unhealthy alimentation are gathered.

Gastric cancer is more usual in rural medium, where the culinary traditions (which are often unhealthy) are kept more rigorously.

The alimentary habits in Bihor country provide all those factors that are considered of high risk in producing gastric cancer. The incidence of gastric cancer is decreasing as a result of promoting healthy alimentary habits and making people understand how important it is what they are eating.

REFERENCES

1. Angelescu N., C. Dragomirescu, I. Popescu, 1997, Patologie Chirurgicală pentru Admitere in Rezidențiat Vol. I, Ed. Celsius, București
2. Gherasim L., 2002, Medicină Interenă Vol III, Ed. Medicală, București
3. Hamilton S.R., L. A. Aaltonen, 2000, WHO OMS International Agency for research on Cancer (IARC) – Pathology and Genetics of Tumours of the Digestive System, Ed. IARC