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The impact of diet on gastroesophageal reflux disease in patients at an early age

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Admission: Reflux disease is one of the most common diseases of the upper gastrointestinal tract. In the conservative treatment, non-pharmacological primary role proper nutrition and diet compliance.

Objective: The aim of the study was to determine the impact diet has on reflux disease.

Material and methods: The study has been given to people with gastroesophageal reflux disease. The study was conducted in Bydgoszcz and Wloclawek. The study used a survey of their own design on socio-demographic data and questions about dietary treatment. Statistical analysis was performed using SPSS statistical program.

Results: The highest percentage of women-study group accounted for 58.1%, while men accounted for more than 41.9% of the study population. The study was dominated by two age groups. People aged 45-59 years - 34.9%, and 60-74 years - 30.2%. Respondents most frequently observed symptoms of gastroesophageal reflux disease after eating high-fat products - 34.9%. 7 persons adversely affected by the sharp spices, for 6 people - chocolate, for more than 10% of soda. For nearly half of the study population (44.2%) diet was too cumbersome to be able to be used. 10 people (23.3%) is not made trouble, 18.6% of

respondents are aware that some products hurt them, but they can not give them up, and 14% of respondents often forgot about the use of supplements.

Conclusions:

1. The symptoms of gastroesophageal reflux disease in subjects most often occur after eating high fat products.
2. The incidence of GERD increases with age.
3. For almost half of the population studied diet is too cumbersome to be able to use it.
4. Addictions such as alcohol and smoking have an impact on the incidence of gastroesophageal reflux disease.

Keywords: Gastroenterology, reflux disease, diet.

Admission

Reflux disease is one of the most common diseases of the upper gastrointestinal tract.

It is a multifactorial disorder. The main cause of gastroesophageal reflux disease is the failure of the lower esophageal sphincter and the harmful effects on the mucous membrane of the esophagus with acid reflux. Other causes include gastric emptying disorders, excessive esophageal sensitivity, obesity, pregnancy, and chronic constipation. The development of gastroesophageal reflux disease may also occur in the course of some systemic diseases, such as: diabetes, systemic sclerosis, alcohol polyneuropathy and in the case of hormonal disorders. An important role is also played by patients taking lowering the pressure of the lower esophageal sphincter, especially oral contraceptives, methylxanthines, nitrates and anticholinergics. The pathogenesis of reflux oesophagitis also includes alcohol and smoking.

Smoking reduces the tension of the lower esophageal sphincter and alcohol stimulates the production of gastric acid. The development of GERD is also favored by the presence of hiatal hernia, as a result of which the gastroesophageal junction shifts [2,3,4].

On average, GERD affects around 4 to 7% of adults. It affects people of all ages regardless of gender. The incidence increases in patients above 40 years of age and pregnant women [1,2].

The incidence of the disease in Poland is estimated at 34%. Both men and women the incidence is similar. Complications of the disease, such as esophagitis or Barrett's esophagus often, however, concern

men [2,3, 4, 5, 6].

In the treatment of gastroesophageal reflux disease methods are used conservative and surgical instruments. The overall goal of treatment of gastroesophageal reflux disease is caused by the disappearance, or at least symptoms. There is a tendency to treat oesophagitis and prevention of complications of GERD, such as ulcers, aspiration of gastric contents during sleep, epithelial metaplasia of the esophagus, and esophageal stricture leading to dysphagia, and odynophagia [7, 8].

In the conservative treatment, non-pharmacological primary role proper nutrition and diet compliance. Diet, change in eating habits, lifestyle changes, withdrawal from addictions, weight loss factors, which allow very often avoid the use of lead and pharmacotherapy to alleviate pain or even disappear [5, 9, 10, 11,12].

The aim of the study was to determine the impact diet has on reflux disease.

Material and methods:

The study has been given to people with gastroesophageal reflux disease. The study was conducted in Bydgoszcz, Wloclawek, within three palcówkach. The study used a survey of

their own design on socio-demographic data and questions about dietary treatment. Statistical analysis was performed using SPSS statistical program.

Results:

The research group consisted of patients with gastroesophageal reflux disease, hospitalized in 3 centers in Bydgoszcz and Wloclawek.

The highest percentage of women-study group accounted for 58.1%, while men accounted for more than 41.9% of the study population.

The study was dominated by two age groups. These were people aged 45-59 years - 15 people (34.9%) and 60-74 years - 13 patients (30.2%).

The most common symptoms of gastroesophageal reflux disease occurred after the consumption of high-fat products - 15 people (34.9%). For the 7 patients (16.3%) adverse influence exerted hot spices to 6 (4%) - chocolate, for 5 (11.6%) soda. In 4 patients (9.3%) adversely affect alcohol, in 3 patients (7%) and in the next 3 coffee (7%), citrus fruits (Table I).

Table I. Products with symptoms of GERD in the subjects

After which of the following products are you symptoms of GERD?	N	%
Chocolate	6	14
high fat products	15	34,9
Spicy spices	7	16,3
carbonated beverages	5	11,6
alcohol 4 9.3	4	9,3
Coffee	3	7.0
citrus fruit	3	7.0
Total	43	100.0

The largest number of people - 28 (65.1%) suffered more than three years. 1 year 8 people suffered (18.6%), 2-3 years - 4 persons (9.3%) and from 1-2 years 3 people - 7% (Table II).

Table II. Duration of the disease in the subjects

How many years have you been ill?	N	%
Up to 1 year	8	18.6
From 1-2 years	3	7.0
From 2-3 years	4	9.3
Over 3 years	28	65.1
Total	43	100.0

For 19 patients (44.2%) diet was too cumbersome to be able to use it. 10 people (23.3%) is not made trouble, 8 patients (18.6%) were aware that some products hurt them, but they can not give them up, and 6 patients (14%) often forgot about the use of supplements. No alcohol was consumed by 21 people (48.8%). Occasionally drank alcohol, 18 people (41.9%), every 3 people (7.0%), and once a week - 1 person (2.3%). Majority, 38 patients (88.4%) answered that it does not matter to them because they do not smoke cigarettes. 5 patients (11.6%) confirmed that the cigarettes because they cause them pain associated with the disease.

Discussion of the results

According to their studies confirmed the data on the incidence of the disease in people over 45 years of age.

Lifestyle modification, adherence to dietary recommendations can reduce the feeling of discomfort associated with the disease. According Kowalczyk B. is very important to proper nutrition. You should eat more meals in small quantities, avoid fatty, high-calorie foods, carbonated beverages, large quantities of spices, sweets, juice of citrus fruits, chocolate and coffee. [1] This is confirmed by own research. Own studies indicate that a significant proportion of the respondents - 25 persons (58.1%) does not apply any diet. For 19 people it is too cumbersome, 6 people just forget about it, 8 people answered that they are aware of the dangers of certain products, but they can not give them up. The symptoms of gastroesophageal reflux disease in subjects most often occur after eating high-fat products (15 people) sharp spices (7 persons), chocolate (6), carbonated beverages (5), coffee and citrus fruits (for 3 people). Our findings correspond with research Kowalczyk B [1]. Our study also correlate with studies Pehle C. et al., Who have confirmed that a diet rich in fats and chocolate products may aggravate the symptoms of gastroesophageal reflux disease [13].

Addictions such as drinking alcohol and smoking also have an impact on the incidence of disease reflex. Our study showed that 20.9% reported that smoke cigarettes, 5 patients (11.6%) of them they cause the symptoms associated with the disease reflex, and 34 persons (79.1%) respondents replied that they do not smoke cigarettes. These results are satisfactory because of the large number of smokers among the respondents. According hexagon J. cigarette smoking is harmful to the stomach and esophagus [10].

Hexagon, and J. J. Dzieniszewski in his publication report that tobacco reduces the voltage of the lower esophageal sphincter may impair its peristalsis about 20% [14].

With our own research shows that drinking alcohol every day in the research group is 3 people, 18 people drink occasionally, and one person once a week. Other people do not drink at all. Often after alcohol dates back to men than women. According to B. Kowalczyk alcohol - even small amounts can cause heartburn for several hours or symptoms of reflux, so it is recommended that alcohol consumption [1]. These data correspond to the own research and testing Falk GW and Richter JE, who also showed the adverse effect of alcohol gastroesophageal reflux disease [6].

Conclusions

1. The symptoms of gastroesophageal reflux disease in subjects most often occur after eating high fat products.
2. The incidence of GERD increases with age.
3. For almost half of the population studied diet is too cumbersome to be able to use it.
4. Addictions such as alcohol and smoking have an impact on the incidence of gastroesophageal reflux disease.

References

1. Kowalczyk B .: GERD gastro-oesophageal. Family Medicine, 2002.
2. W. Tarnowski, Bielecki K .: Reflukus gastroesophageal reflux. Progress of Science Med., 2, 2001, 68-76.
3. Bianchi Porro G .: Gastroenterology and Hepatology. Lublin, headed by 2003.
4. Kokurewicz K .: Gastroesophageal reflux disease. ESCAPE Magazine, 2009.
5. JS de Caestecker, Misiewicz JJ: Gastroesophageal reflux disease - a monograph, Science Press Lim. 1996 London.
6. Falk GW, Richter JE: Reflux disease and Barrett's esophagus. Endoscopy 1996, 28, 13-21.
7. Wallner, G, W .: Zgodziński pathophysiology of gastroesophageal reflux disease. Family Medicine, 5, 2004, 198-200.
8. Barylski M., Banach M., P. Okoński Gastroesophageal reflux disease (GERD) - conservative treatment and surgical treatment. Wire. Bow. 2004, 10, 48-51.
9. Tarnowski W. Bielecki K .: Mild disease gastro- esophageal junction treated surgically. Progress of Science Med., 1, 2006, 19-26.
10. Ciok J .: The role of nutrition in disease gastroesophageal reflux. New Med., 10, 1999.
11. Makarewicz-Wujec M. Kozłowska-Wojciechowska M .: The Diet reflex, Institute of Food and Nutrition, 4, 2001.
12. Bayless TM, Diehl AM: Gastroenterology and liver disease. Advances in therapy. [Barbara wing-Radomańska- red Ed Eng] Lublin, lead, I. eds., 2006.
13. Pehla C., Waizenhoefer A., Wendl B et al .: Effect of low and high meals on lower esophageal sphincter motility and gastroesophageal reflux in healthy subjects. Am. J. Gastroenterol. 1999, 94, 1192-1196.
14. Ciok J., Dzieniszewski J .: Smoking and diseases of the digestive system. Pol Gastroenterol. 1998, 5, 255-261.