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Assessment of basic knowledge on colorectal cancer and its prophylaxis in people living in small city and countryside

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Abstract

Introduction: Colorectal cancer is the third most common cancer in the world in men (660,000 cases, 10%) and the second in women (570,000 cases, 9%). Almost 60% of cases occur in developed countries. Colorectal cancer is second most common type of cancer in European countries, after lung cancer in men and breast cancer in women. Mortality from colorectal cancer in Poland is higher among men than the average for European Union countries - in 2010, the mortality rate was about 50% higher than the average for European Union countries.

Materials and methods: Voluntary and anonymous research was conducted in 2017 and 2018 among 300 adult people, who were randomly selected. The study used the method of a diagnostic survey, while the research tool consisted of original questionnaire. The

questionnaire contained 16 questions. The collected material was subjected to descriptive analysis. Values of the analyzed parameters were measured on a nominal scale and characterized by means of numbers and percentages. The data elaboration was based on a Microsoft Excel spreadsheet.

Results: In reference to the collected data, vast majority agreed genetical factor to be crucial in developing of colorectal cancer, as 83% of subjects choose this answer in a multiple-choice question. Another multiple-choice question revealed that almost all questioned people associated rectal bleeding with symptoms of colorectal cancer – 94%. 29% of respondent admitted having a colonoscopy. Furthermore, over a half of respondents is aware of existing prophylactic programs in Poland.

Conclusions: In reference to the survey, little of respondents perceive alcohol and red meat as risk factor for colorectal cancer development. Respondents who admitted having colonoscopy account for way too little group of people, from a perspective of analyzed age group. Still, little of them admitted seeing a doctor after suspicious signs/symptoms occurred.

Key words: colorectal cancer, screening, prophylaxis, health education

Introduction

Colorectal cancer is the third most common cancer in the world in men (660,000 cases, 10%) and the second in women (570,000 cases, 9%). Almost 60% of cases occur in developed countries. Differences in the frequency of occurrence between populations are more than 10-fold: the highest incidence is recorded in Australia, New Zealand and Western Europe, and the lowest in Africa and South-Central Asia. The incidence is about twice as frequent in the male population than women. Colorectal cancer is responsible for 8% of cancer deaths worldwide, which is the fourth most common cause of death in the world, causing annually about 600,000 deaths (8%). Mortality is lower in women than in men [1].

The majority of cases of malignant colorectal cancer occur in people over the age of 50 (94%). It is estimated that more than 75% of colorectal cancer cases appear in people over the age of 60. The risk of colorectal cancer increases with age, in men it is about 1.5-2 times higher than in women. In men, the incidence rates peak at the turn of the eighth and ninth decades of life (around 300/105). In women, the age when risk of developing colorectal cancer is the highest is similar to men – eight/night decade of life [2].

Aim of study

The aim of the study was the assessment of basic knowledge on colorectal cancer among people living in small city (below 30 000 of residents) and countryside.

Materials and methods

Voluntary and anonymous research was conducted in 2017 and 2018 among 300 adult people, who were randomly selected. The study used the method of a diagnostic survey, while

the research tool consisted of original questionnaire. The questionnaire contained 16 questions. First part of the survey was contributed to the sociodemographic data of the subjects. Subsequent questions tested subjects' knowledge about the risk factors of colon cancer, age groups at highest risk for colorectal cancer, symptoms and screening. In our study we wanted subjects to make self-assessment of their knowledge on colorectal cancer.

The collected material was subjected to descriptive analysis. Values of the analyzed parameters were measured on a nominal scale and characterized by means of numbers and percentages. The data elaboration was based on a Microsoft Excel spreadsheet.

Results

Socio-demographic questions

According to collected in the survey data, there were four age groups of questioned subjects. The majority of subjects belonged to 56-60-year-old group. The oldest questioned subject was 72 years old, while the youngest 50 years old. Furthermore, in terms of gender structure females accounted for 54% of all subjects, consequently, males accounted for 42%. Regarding education level, subjects who chose secondary education comprised the majority, and accounted for 41% of all subjects. Second most frequent answer was vocational education, while higher education and elementary education were placed third and fourth respectively. Moreover, basing on analyzed data 72% of questioned subjects lived in a city (below 30 000 of residence), whereas 28% were residence of countryside.

Questions on colorectal cancer and screening

In reference to the collected data, vast majority agreed genetical factor to be crucial in developing of colorectal cancer, as 83% of subjects choose this answer in a multiple-choice question. 71% of questioned subjects agreed that obesity contributes to colorectal cancer development. Furthermore, 66% subjects agreed that tobacco can be a risk factor of colorectal cancer, and 62% stated that sedentary lifestyle also can be harmful. Surprisingly, only one third of questioned subjects think that alcohol and frequent red meat consumption poses a threat to their health. However, 17% of subjects did not choose any of given risk factors (Figure 1).

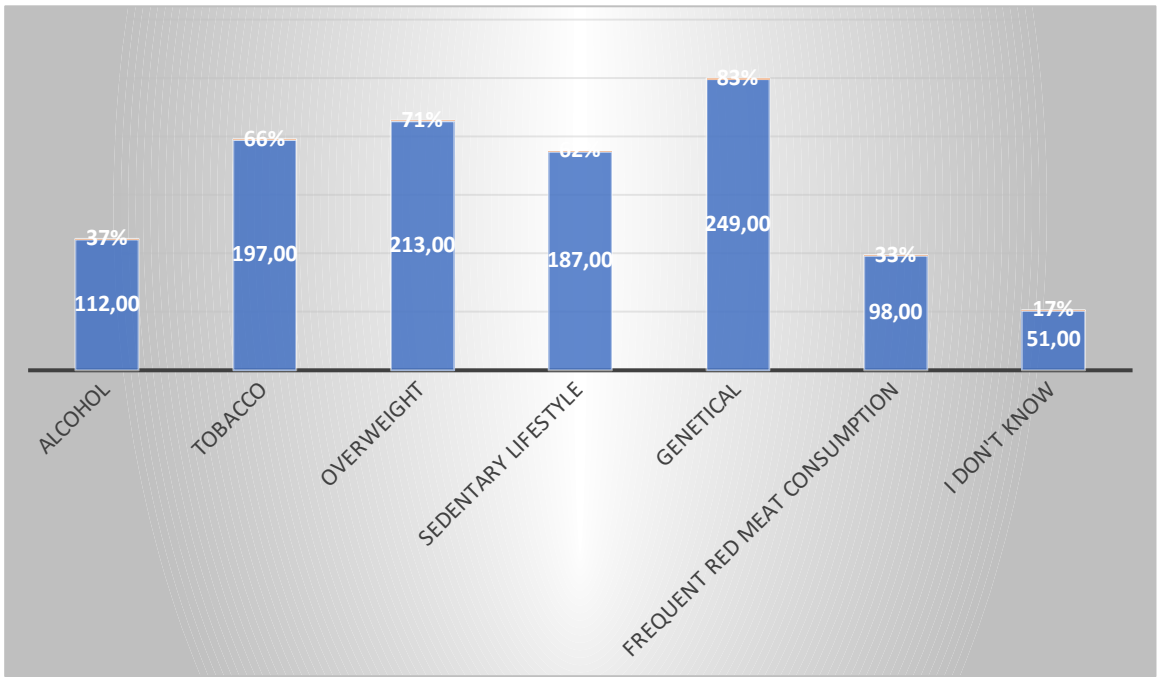

Figure 5. The choices of risk factors of colorectal cancer

Subjects asked about which age group is at highest risk of occurrence of colorectal cancer, more frequently answered that 40-50-yeard-old group is at the highest risk, as 33% of them choose this answer. Only 15% of subjects answered that 30-40-year-old group is at highest risk of colorectal cancer (Figure 2).

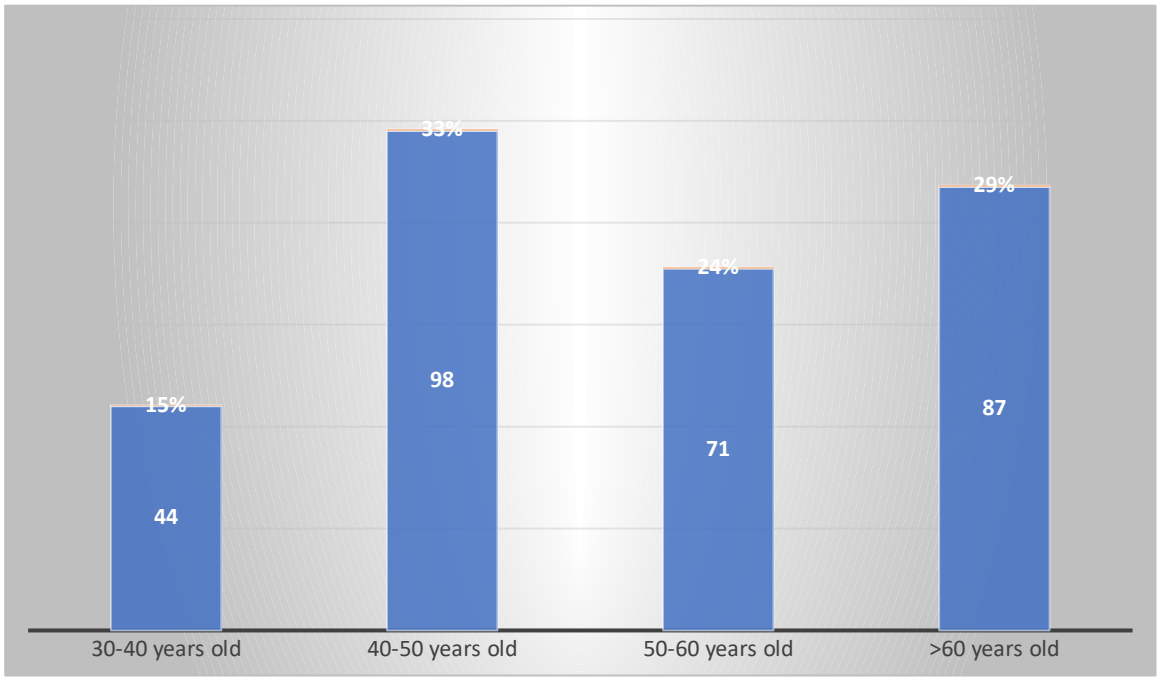

Figure 2. The age group with the highest risk of occurrence of colorectal cancer

Another multiple-choice question revealed that almost all questioned people associated rectal bleeding with symptoms of colorectal cancer – 94%. The majority agrees that weight

loss and abdominal pain can be caused by colorectal cancer – 80% and 86% respectively. Almost 60% answered that colorectal cancer can develop asymptomatically though. Shifts in stool frequency and consistency was chosen by almost half of respondents. Surprisingly, 4% did not choose any of answers on this question (Figure 3).

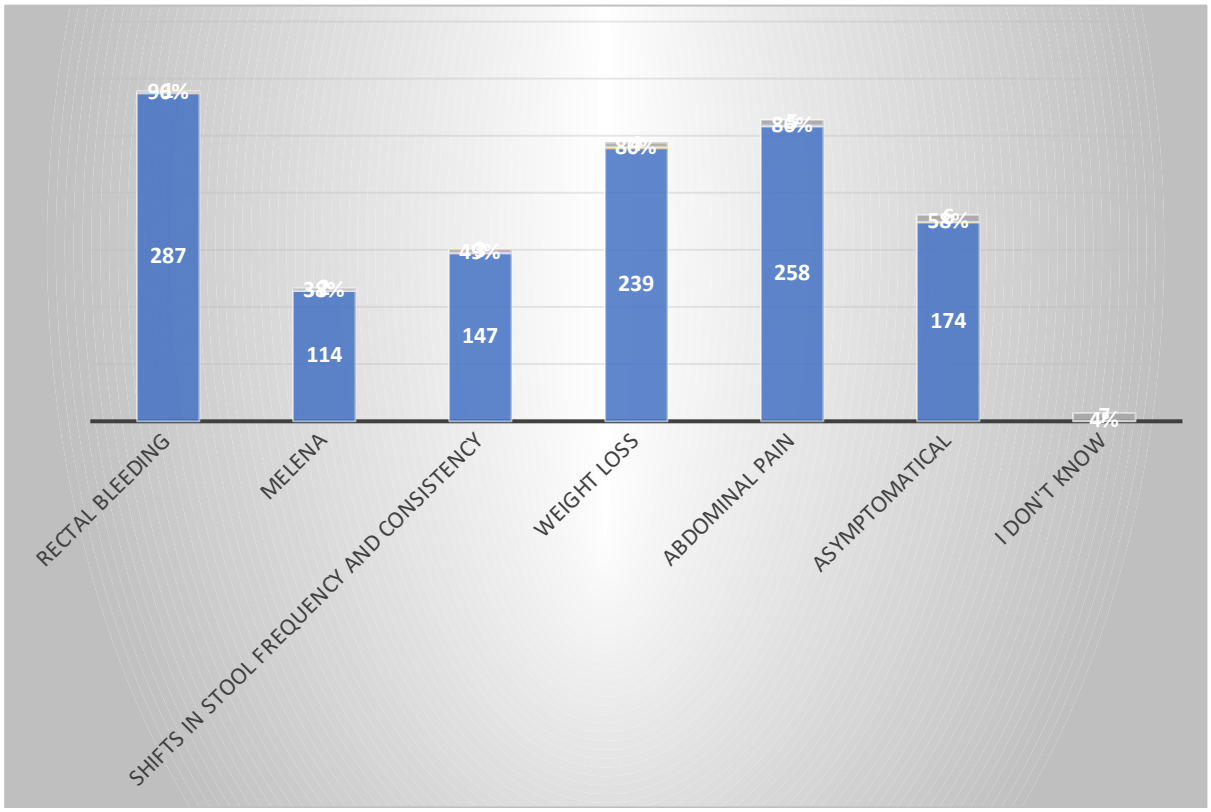

Figure 3. The choice signs/symptoms of colorectal cancer – multiple choice question

According to the survey, nearly half of respondents noticed one of listed above signs/symptoms (Figure 4). However, only 23% of this group of subjects have seen a doctor after they observed suspicious signs or symptoms.

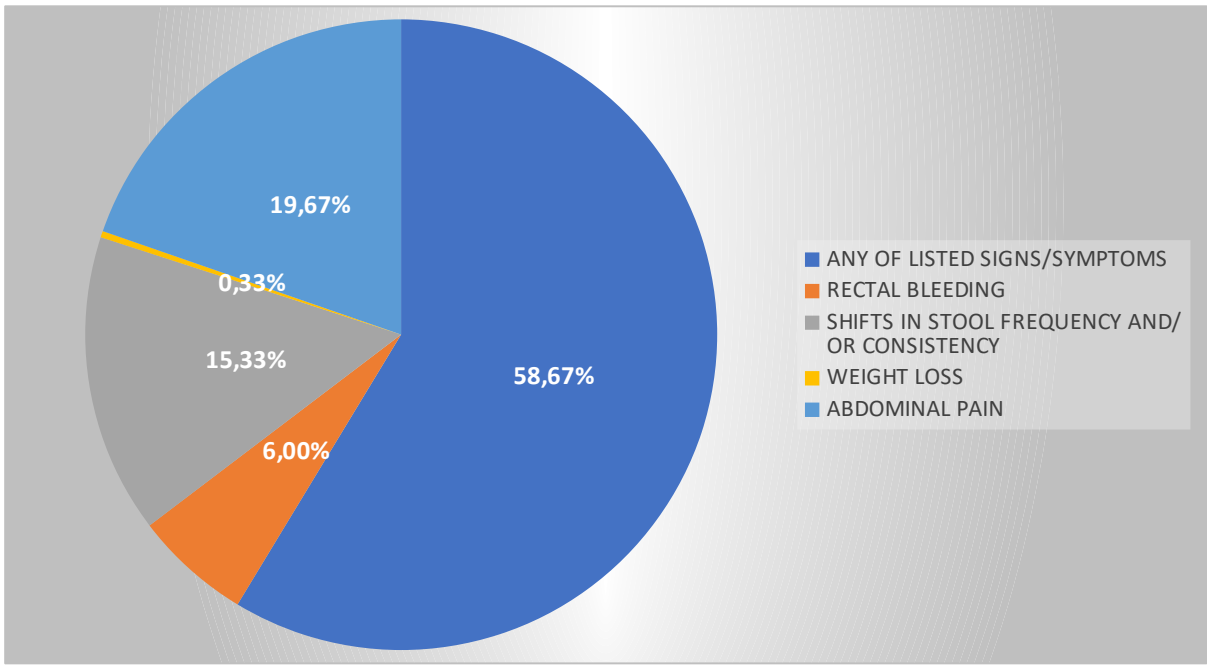

Figure 4. Have you observed any of listed signs/symptoms recently?

In reference to the survey, only 9% of respondents admitted having been done per rectum examination, while 3% did not knew. 29% of respondent admitted having a colonoscopy. Furthermore, over a half of respondents is aware of existing prophylactic programs in Poland, however, still 36% seem to be unaware of such programs. Although more than half of respondents know about prophylactic programs on colorectal cancer, only 41% subjects admitted that there are early detection methods. Moreover, almost 60% of respondents think that rectal cancer can be treated and curable, while almost 40% think that it cannot be cured (Figure 5).

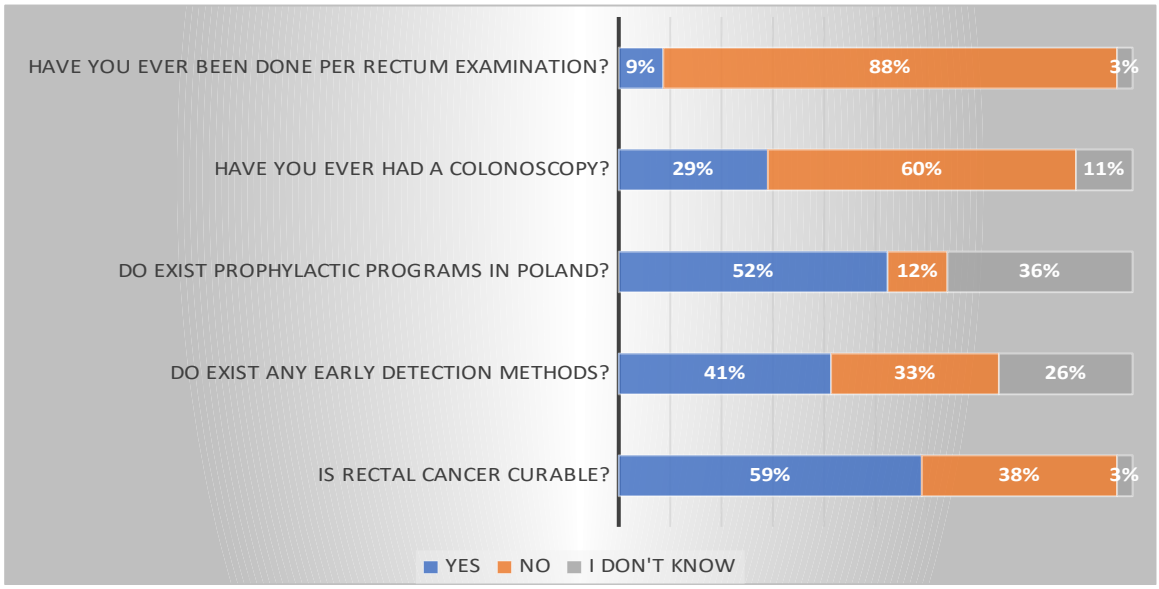

Figure 5. Basic knowledge on screening

According to the collected data, more than one third states that colonoscopy is the most sensitive test detecting colorectal cancer (Figure 6).

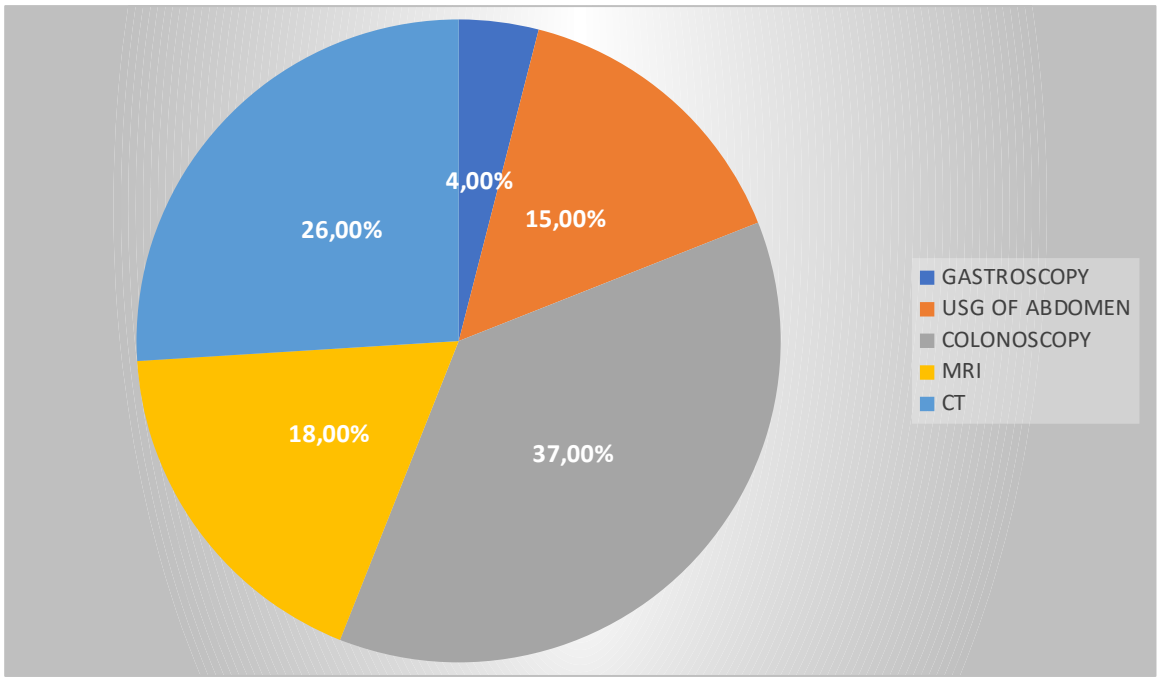

Figure 11. Choose test providing the most sensitive detection of colorectal cancer?

Surprisingly, almost one third of respondents state that their knowledge on colorectal cancer is satisfactory, while almost 60% admitted that their knowledge on topic is not enough (Figure 7).

Discussion

Colorectal cancer is second most common type of cancer in European countries, after lung cancer in men and breast cancer in women. Mortality from colorectal cancer in Poland is higher among men than the average for European Union countries - in 2010, the mortality rate was about 50% higher than the average for European Union countries (2009 data). Among women, mortality from colorectal cancer is slightly higher than the European average [3,4,5,6].

It develops slowly, usually over a dozen years, mainly from polyps. Initially, small polyps arise from mutant colon epithelial cells. Some of them grow excessively, there are further mutations in them, until cancer finally develops, adopting in the first phase a form of benign lesions, i.e. adenomas. Their removal effectively prevents their transformation into invasive cancer, while the detection of the initial stage of malignancy gives a chance for complete recovery. Therefore, early detection of the disease is so important [7].

Abdominal pain shifts in stool frequency and consistency (diarrhea or constipation), traces of blood in the stool (which do not result from hemorrhoids), as well as weight loss or anemia of unexplained basis, are conditions that can be caused by colorectal cancer. In the first stage of cancer, which is crucial to treatment, neither polyps nor cancer cause pain, so the patient usually does not worry. Hence, screening tests are valuable, because despite the lack

of symptoms they allow to detect the onset of the disease [8]. Three methods serve this purpose. The simplest of them is a test for fecal occult blood (FOBT). If the test is carried out every year, the mortality decrease reaches 33%, if every two years - only 6%. However, according to the British data, FOBT tests on average is positive only in two out of a hundred people, but it is not yet synonymous with colorectal cancer. In order to diagnose exactly the cause of the presence of blood in the stool, a colonoscopy must be performed. It should be emphasized that sigmoidoscopy does not provide full information of large intestine, thus colonoscopy cannot be replaced by sigmoidoscopy [9].

Conclusions

Knowledge on colorectal cancer in Polish small cities and countryside seems to unsatisfactory. Prophylactic programs and distribution information on such stuff is crucial in terms of economical point of view as well as human suffering. This survey indicates that colonoscopy still for some entities continues to be either source of fear or a mystery. Way to little people go to see a doctor after suspicious signs or symptoms occurred. Fortunately, the majority of respondents admitted that they do not know enough about colorectal cancer, which may stand for willingness to have intimate knowledge on the topic.

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