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**THE STUDY OF COLORECTAL CANCER PATIENTS' LIFESTYLE CHANGES
AND AWARENESS OF SCREENING METHODS**

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Colorectal neoplasm is a major cause of cancer morbidity and mortality, presenting an uneven distribution worldwide. This condition continues to be an important public health issue in developed and highly industrialized countries, while at the same time it becomes a serious threat to developing countries. Genetic, epidemiological and experimental studies have demonstrated that the occurrence of colorectal cancer (CRC) is the result of complex interaction between genetic susceptibility and environmental factors. This study aimed to identify food and behavioral factors in those patients' diet and lifestyle who are at risk of developing colorectal cancer and the types of food that have chemoprotective role. The acquired data were corroborated with the location of the tumor formation. Patients' awareness of colorectal cancer screening modalities has also been surveyed, thus contributing to the scientific documentation of patients' behavioral characteristics in the Mureș area. Based on the acquired results, there can be formulated proposals for the medical education of the population meant to improve the sanitary policy in the field.

During September 2014 - March 2016, a study was conducted in 275 colorectal cancer patients admitted to the Surgical Clinic 1 and 2, Târgu Mureș. The observational epidemiological study was based on a questionnaire that collected data on lifestyle and patients' awareness of screening methods. The results of the survey were presented in the first two studies.

Study 1 was conducted by inquiring patients about their lifestyle. The questionnaire included data on nutrition, alcohol consumption, smoking behavior and evaluation of physical activity and circadian rhythm. The obtained data were corroborated with the location of the tumor formation. Patients' diet and lifestyle in whom the tumor was located in the proximal segment was compared to patients in whom the tumor grew in the distal segment of the large intestine. The mean age of patients was 64.7 years old. The prevalence of tumors located in the distal segment of the large intestine showed an increased level in male patients. The food-related behavior analysis of CRC patients revealed a modest daily intake of foods rich in cellulose fibers. Very few patients reported a daily consumption of citrus fruit or natural juices extracted from fruit. Moreover, only few patients consume leafy green vegetables on a daily base (e.g. lettuce, cabbage, spinach, broccoli) or know about the beneficial effects of medicinal herb extracts such as silibin and curcumin on the mucosa of the large intestine. The amount of beef or lamb meat consumption proved to be low and only few ill people eat fish every day. On the other hand, most of the surveyed patients prefer pork. The obtained results also revealed that there are a large number of overweight or obese patients. The majority of these patients were male and had a tumor located in the distal segment of the large intestine. The analysis of behavioral factors related to lifestyle showed a significant connection between regular alcohol consumption and male gender, as well as the fact that most patients who prefer drinking alcoholic beverages had a rectal localization of the

neoplastic growth. Similarly, there was a significant association between the smoking status, the number of consumed cigarettes and the location of the tumor formation.

Study II was based on a questionnaire compiled to find out about colorectal cancer patients' awareness of screening methods in general and colorectal cancer screening in particular. The level of awareness regarding screening methods for early detection of colorectal cancer was extremely low in the respondents included in the study. The statistical analysis showed low intensity correlation between knowledge about screening and place of origin, respectively the educational level of participants.

The present research could not find any correlation between the awareness of screening methods and the different stages of colorectal cancer diagnosed in the studied group. The main sources from which some patients learned about screening methods was mass media and people around them. Medical staff working in the primary or secondary health care system did not contribute at all to informing patients about screening methods. Most patients would have participated in a CRC screening program if they had had enough information on how to do it.

Study III aimed to evaluate the correlation between smoking and colorectal neoplasm and to determine the incidence of smokers in the surveyed group. This retrospective study included data collected from the observation sheet of 982 CRC patients. The average age of the subjects included in this study was 59 years old. The acquired data supports the hypothesis that heavy smokers present an increased level of risk for developing colorectal cancer. Males who smoke more than 20 cigarettes/ day for over 30 years are the most affected by this disorder. Smoking mainly affects the lining of the distal segments of the large intestine. The probability that heavy smokers will develop rectal cancer is significantly higher than the probability to get colon cancer.

This research on colorectal cancer expands the sphere of knowledge with unique data by contributing with essential information to the design of intervention strategies to improve primary and secondary prevention. The lack of screening, which is the best way to prevent cancer, advocates for the improvement of other prevention methods. In order to design an effective prevention strategy it is essential to obtain information on food and behavioral factors that improve the populations' lifestyle. It is necessary to improve the level of awareness of colorectal cancer screening methods as well.