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Saudi Public Awareness Regarding Colon Cancer

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Authors' contributions

This work was carried out in collaboration between both authors. Author NJA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author MA managed the analyses of the study. Authors NJA and MA managed the literature searches. Both authors read and approved the final manuscript.

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ABSTRACT

Background: Colorectal cancer is the third most common malignancy in the world and in Saudi Arabia it is the second most common cancer ranking first among men and third among women. In Saudi Arabia there are no screening programs on a national level that conduct organized screening of colon cancer. Moreover, the knowledge about colon cancer is poor.
Aim: The aim of this study is to assess the knowledge and awareness of Saudi population about colon cancer.
Methodology: The study consisted of a survey that was developed using a survey of previous study and after validation it was converted to online form and was distributed to be filled by the public.
Results: Public awareness regarding colon cancer is suboptimal, improving colon cancer awareness with educational interventions is needed specially for vulnerable people.
Conclusion: Serious active measures should be taken to fill the gap in awareness of this disease for the public and health care workers.

Keywords: Awareness; colon cancer; knowledge; screening.

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1. INTRODUCTION

Colorectal cancer is the third most common malignancy in the world [1] and is the second leading cause of cancer-related mortality in the United States [2].

Although its incidence is relatively low, colorectal cancer in Saudi Arabia is the second most common cancer ranking first among men and third among women [3]. The World Health Organization reported the death rate from colorectal cancer in Saudi Arabia at 8.3% in 2004 [4].

Colorectal cancer survival is closely linked to the pathological and clinical stage at diagnosis, and several reports suggest that if colorectal cancer occurs at a young age it is associated with a higher mortality and more severe disease, which is of particular relevance to the Saudi Arabian people [5,6], the overall survival of Saudi colorectal cancer patients is approximately 44.6%, which is noticeably lower than the overall survival of US patients (about 60%) [3].

The Saudi Cancer Registry reported that in a previous study about colorectal cancer, out of 1109 cases of cancer were diagnosed and registered, about 55.6 % of the patients were males and approximately 44.4% were females. At diagnosis 56 years was the median age for females and 60 years for males [7].

Most of the risk factors of colorectal cancer are avoidable, such as sedentary lifestyles, and nutrition deficiency [8]. Other risk factors cannot be modified such as age and family history [9]. Colorectal cancer is usually associated with several symptoms such as chronic abdominal pain, rectal bleeding, chronic change in bowel habits, unexplained weight loss, fever, weakness and fatigue. Furthermore, there are disorders that may relate to colorectal cancer such as irritable bowel syndrome, inflammatory bowel disease and hemorrhoids or infection [10]. Not only males are vulnerable to colorectal cancer but also females are vulnerable. Saudi females have a higher incidence and death rate than other populations in less developed areas of the world [11].

Knowledge of the signs, symptoms and risk factors of colorectal cancer has been shown to affect participation in the screening [8,12]. Moreover, Koo Et al reported that knowledge of a disease is directly related to screening program participation [13]. Despite of the initiation of screening programs in other countries, participation rates are low compared with other cancer screening programs such as breast or cervical cancer screening programs [14].

In Saudi Arabia, colonoscopy is available in different tertiary medical centers in the major cities both in private and governmental sectors. There is no direct access to carry out colonoscopy for screening purposes in an organized program despite its availability. Additionally, in Saudi Arabia there are no screening programs on a national level that conduct organized screening of colon cancer using non-endoscopic or endoscopic methods [15].

Al-Maghrabi reported that although the incidence of colorectal cancer increases, health education about colorectal cancer till now is not point up by Ministry of Health in compare with other cancer types such as lung and breast cancer and that Ministry of Health didn't approve screening program for colorectal cancer [16]. It is important to enhance the knowledge of colon cancer among the Saudi Population. Therefore, the aim of this study is to assess the knowledge and awareness of Saudi population about colon cancer.

2. METHODOLOGY

The study consisted of a survey that was developed using a survey of previous study by Zubaidi, et al [17] and after validation it was converted to online Google form. The survey was distributed to be filled by the public. Inclusion criteria included persons with no prior history of colon cancer.

Exclusion criteria include persons who refused to participate in the study, illiterate persons who lack of the basic ability to read or write and the incomplete survey because if the survey is incomplete the questionnaire will be invalid for inclusion in the final study. Every participant's identity was kept unidentified and the participation in it was voluntary.

The survey consisted of questions related to personal data, public awareness regarding colon and public awareness regarding colon cancer. All questions were in multiple choice format and for some questions multiple answers per question were permitted so the total of percentages for these questions could be more than 100%. The data were collected by excel software and represented as percentages and frequencies.

3. RESULTS AND DISCUSSION

The survey was filled by 128 respondents. More than 51 % of them were females and the age of the between 20-40 (86.72%). Personal data of the respondents were represented in Table 1.

About 57% of the respondents know what is colon and only 57.82% said that the main function of colon was to digest food. The awareness of the public about colon was poor in the present study, Table 2 shows the public awareness regarding colon.

About 58.59 % of the participants said that they screen for colon cancer only if they have symptoms. Only 8.59% reported that inflammatory bowel disease is a risk factor for colon cancer, only 3.91 % said that radiation is a risk factor and no one choose the family history as a risk factors. About 40.63 % said that there is a relationship between colon cancer and irritable bowel syndrome. Table 3 shows public awareness regarding colorectal cancer.

More than half of the participants said that they screen for colon cancer only if they have symptoms. Zubaidi et al reported that the most common answer to when colorectal cancer screening should commence was at symptom onset [17]. Barasheed et al reported that about 73.2% of the participants had not heard about colorectal cancer screening [18].

Only 8.59% reported that inflammatory bowel disease is a risk factor for colon cancer, no one chooses the family history as a risk factors. Similarly, Zubaidi et al reported that most respondents did not know that family history are risk factors for colorectal cancer [17]. In contrast to our study, Al-Maghrabi reported that about half of the respondents know that family history is a risk factor for colon cancer [16]. Tfaily et al reported that about 83% of participants were not aware of colorectal cancer risk factors [19]. Elshami et al reported that having a bowel disease was the most frequently recognized colorectal cancer risk factor [20].

The results of present study show that the awareness of the public regarding colon cancer is poor. Khayyat and Ibrahim reported that only 37.4 % of the public heard of colon cancer [15].

Table 1. Personal data of the respondents

Variable	Category	Number	Percentage
Gender	Male	62	48.44%
	Female	66	51.56%
Age	Less than 20	5	3.91%
	20-40	111	86.72%
	More than 40	12	9.38%
Marital status	Single	60	46.87%
	Married	68	53.13%
Level of education	Illiterate	1	0.78%
	Secondary school	30	23.44%
	University degree	97	75.78%

Table 2. Public awareness regarding colon

Variable	Category	Number	Percentage
The colon is a part of	The large intestine	73	57.03%
	The small intestine	11	8.59%
	The stomach	12	9.38%
	Stomach and small intestine	32	25.00%
Colon function is:	Digestion of food	74	57.82%
	Waste storage	88	68.76%
	Water reabsorption	64	50.00%
	Does not have function	30	23.44%

Table 3. Public awareness regarding colorectal cancer

Variable	Category	Number	Percentage
The incidence of colon cancer is:	High	31	24.22%
	Average	50	39.06%
	Rare	6	4.69%
	Don't know	41	32.03%
When do you screen for colorectal cancer?	At the onset of symptoms	75	58.59%
	At the age of 20 years	20	15.63%
	At the age of 50 years	33	25.78%
What are the risk factors for colon cancer?	Smoking	67	52.34%
	Inflammatory bowel disease	11	8.59%
	Family history of colon cancer	0	0.00%
	Obesity	57	44.53%
	Fatty food	13	10.16%
	Age	44	34.38%
	Radiation	5	3.91%
	I don't know	30	23.44%
What is the screening modality for colon cancer?	Fecal occult blood	61	47.66%
	Colonoscopy	107	83.59%
	X-ray	20	15.63%
	Ultrasound	13	10.16%
	CT scan	0	0.00%
	I don't know	0	0.00%
Is it possible to be cured from colorectal cancer?	Yes	81	63.28%
	No	7	5.47%
	Don't know	40	31.25%
Is there a relationship between colon cancer and irritable bowel syndrome?	Yes	52	40.63%
	No	21	16.41%
	Don't know	55	42.97%

About 63.28 % of the participants said that colorectal cancer can be cured. Similarly, Alsayed et al reported that the majority of the respondents said that colon cancer can be treated [21].

4. CONCLUSION

Public awareness of colon and colon cancer is suboptimal, improving colon cancer awareness with educational interventions is needed specially for vulnerable people. Serious Active measures should be taken to fill the gap in awareness of this disease for the public and health care workers. Moreover, the screening program is not implemented effectively so more efforts are needed to increase the implementation of colon cancer screening for high risk patients.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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