Awareness on Risk Factors of Colorectal Cancer Among Elderly Population – A Survey

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ABSTRACT

Colorectal cancer (CRC) is an adenocarcinoma which may turn malignant later. CRC is diagnosed by various screening tests such as 'colonoscopy' which is considered as a therapeutic and powerful diagnostic procedure. Younger people may recognise these risk factors and also are aware of various diseases. But in the case of elderly population, only a few are aware. This may be because of less education or negligence of the symptoms that appear. For educating the elderly people about cancer, frequent awareness camps must be held and also through social media it can be spread. The aim of this study is to create awareness on risk factors of colorectal cancer among elderly population. Questionnaire was prepared and administered to a total of 100 participants through survey planet - an online survey link. Out of 100 participants, only 29.8% were aware of colorectal cancer. It was also noticed that only 6.9% have undergone screening tests (colonoscopy). This shows that awareness on the risk factors of colorectal cancer may be created among the community. People should be educated on balanced diet and healthy lifestyle modifications for well being.

KEY WORDS: COLORECTAL CANCER, AWARENESS, ELDERLY PEOPLE, ONLINE SURVEY, SURVEY PLANET.

INTRODUCTION

Colorectal cancer(CRC) is one of the most malignant and also one of the leading causes of mortality worldwide (Wong et al., 2013). Few of the major reasons for the cause of CRC are old age, male (gender), family history of colorectal cancer and also smoking, air pollution and occupational exposure (Glanz et al., 1999) (Wong et al.,

2002). An increase in the iron content can also lead to various colon related diseases (Nelson, 2001). In men, CRC is the 3rd most common and in females, CRC is the 2nd most common disease. Talking about CRC, what is CRC? It is an adenocarcinoma which may begin as a benign polyp but later may turn malignant (Nasaif and Al Qallaf, 2018). It shows no symptoms in the early stage. But the majority of cancer is recognised only in the last stage. But if it shows symptoms then they are diarrhoea, constipation, rectal bleeding, weakness & fatigue, unintended weight loss, cramping and abdominal pain. CRC risk can be increased by a high intake of a high red diet (Saeed et al., 2018).

CRC is diagnosed by various screening tests such as 'colonoscopy' which is considered as a therapeutic and powerful diagnostic procedure. It is also said that cancer can be prevented by an increase in physical activity,

ARTICLE INFORMATION

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Received 23rd July 2020 Accepted after revision 27th Sep 2020

Print ISSN: 0974-6455 Online ISSN: 2321-4007 CODEN: BBRCBA

Thomson Reuters ISI Web of Science Clarivate Analytics USA and Crossref Indexed Journal

NAAS Journal Score 2020 (4.31) SJIF: 2020 (7.728)

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Online Contents Available at: <http://www.bbrc.in/>

Doi: <http://dx.doi.org/10.21786/bbrc/13.8/169>

maintenance of body weight, increase in fibre diet and reduction of intake of red meat and also reduce intake of alcohol (Nasaif and Al Qallaf, 2018) (Inoue et al., 2006). To avoid CRC we must go for regular medical check up (Berkowitz et al., 2008). Younger people may recognise these risk factors and also are aware of the various diseases (Al-Azri et al., 2019). But in the case of elderly population, only a few are aware because of less education or negligence of the symptoms that appear (Berkowitz et al., 2008). For educating the elderly people about cancer, frequent awareness camps must be held and also through social media it can be spread (Saeed et al., 2018).

In the reference articles, there have been many studies conducted among populations General Public of Kuwait, Kingdom of Bahrain, Oman, Hong Kong, Japan, Saudi Arabia, Spain (Zubaidi et al., 2015). There are also articles comparing the relation of colorectal cancer with for example iron, gold nanoparticles, cytotoxic effect of caralluma fimbriata, etc (Vairavel, Devaraj and Shanmugam, 2020) (Ashwini, Ezhilarasan and Anitha, 2017). There has also been studies on interest of elderly population participating in bowel cancer screening (Wardle et al., 2000). Even the associated health behaviours with colorectal cancer- screening tests have been studied previously (Shapiro, Seeff and Nadel, 2001). The research done in this study had a very limited population of 104 participants above the age of 30 years. The other researches had taken a larger random population in different countries while this study had been studied in India. Previous studies on cancer biology, nano materials, herbal products [(Ke et al., 2019), (Ma et al., 2019), (Wu et al., 2019), (Ramya, Priya and Gayathri, 2018), (Menon, Priya and Gayathri, 2016)] have motivated me to pursue this current research which is useful to our community. The main aim of this study is to create and spread awareness on risk factors of colorectal cancer among elderly people.

Figure 1: Pie chart depicts the percentage distribution of awareness on colorectal cancer among the participants. 70.2% (sky blue) of the participants were aware of colorectal cancer while 29.8% (dark blue) were not aware.

MATERIAL AND METHODS

A self-administered questionnaire was designed based on the awareness of colorectal cancer and its knowledge among elderly people. The questionnaire was distributed through an online survey planet link. The study population belonged to an age group of above 40 years.

There were 104 participants who took the survey, they were explained the purpose of the study in detail. The questions were carefully studied and the corresponding answers were marked by the participants.

Figure 2: Pie chart depicts the percentage distribution of awareness on history of colorectal cancer in participant's families. Almost 80.6% (sky blue) of the participant's family did not have a history of colorectal cancer but 19.4% (dark blue) of the participant's family had a history of colorectal cancer.

Figure 3: Pie chart depicts the percentage distribution of awareness on eating healthy food everyday. Almost 53.8% (dark blue) of the participant's ate healthy food everyday while 46.2% (sky blue) did not eat healthy food everyday to keep themselves healthy.

Figure 4: Pie chart depicts the percentage distribution of awareness on exercising regularly. 35.9% (dark blue) of the participant's kept their body fit by regularly doing exercise while 64.1% (sky blue) did not exercise regularly.

RESULT AND DISCUSSION

The data was collected and statistically analysed. The results were well interpreted. Based on the result of this study, 29.8% of the participants were not aware of colorectal cancer [FIGURE 1]. Colorectal cancer is the fourth most common cause of cancer in relation to death and is also the third most common type of cancer in both men and women all around the world (Saeed et al., 2018). 19.4% of the population had a history of cancer in their

family [FIGURE 2]. Family history of colorectal cancer gets associated with a high chance of colorectal cancer in the patient (Glanz et al., 1999). 53.8% of the population eat healthy food everyday [FIGURE 3]. By taking a high fibre diet, chances of colorectal cancer can be reduced (Nasaif and Al Qallaf, 2018). 35.9% of the population exercise regularly [FIGURE 4].

Figure 5: Pie chart depicts the percentage distribution of participants having diabetes. Among all the participants who had participated in this study, only 7.8% (dark blue) of the participants were diabetic while remaining 92.2% (sky blue) were not diabetic.

Figure 6: Pie chart depicts the percentage distribution of participants who consume alcohol regularly. 22.3% (dark blue) participants consume alcohol regularly while 77.7% (sky blue) of the participants did not consume alcohol regularly.

Figure 7: Pie chart depicts the percentage distribution of participants who have a habit of smoking. 7.8% (dark blue) of the participants have a habit of smoking while 92.2% (sky blue) of the participants did not have a habit of smoking.

By doing exercise regularly, cancer is said to be prevented (Anderson et al., 2015). 7.8% of the population are diabetic [FIGURE 5]. Almost 31% of the population get cancer because of diabetes (Saeed et al., 2018). 22.3% of the population consumes alcohol [FIGURE 6].

Almost 22% of a particular population were affected by colorectal cancer because of alcohol (Inoue et al., 2006). 7.8% of the population have a habit of smoking [FIGURE 7]. Almost 70.6% of the population's main cause of cancer is smoking (Al-Azri et al., 2019). 19.4% of the population get a frequent stomach ache [FIGURE 8].

Figure 8: Pie chart depicts the percentage distribution of participants who get frequent stomach aches. 19.4% (dark blue) of the participants get frequent stomach aches which is one of the symptoms of colorectal cancer, while 80.6% (sky blue) of the participants did not get frequent stomach aches.

Figure 9: Pie chart depicts the percentage distribution of participants who undergo regular medical checkup. 30.1% (dark blue) of the participants did go for regular medical check-up, while 69.9% (sky blue) of the participants did not go for regular medical check-ups.

Change in bowel movements causes stomach ache (Nasaif and Al Qallaf, 2018). 30.1% of the population goes for regular medical check ups [FIGURE 9]. By going for regular medical check ups, any early symptoms of cancer can be checked or the doctor can educate the patient about colorectal cancer (Berkowitz et al., 2008). 52.4% of the population are said to feel weak at times [FIGURE 10]. Weakness can be one of the symptoms for colorectal cancer (Saeed et al., 2018). 7.8% of the population get blood in their stool [FIGURE 11]. Blood in the stool can also be a symptom of colorectal cancer (Saeed et al., 2018). 34.6% of the population have gastric problems [FIGURE 12]. Consumption of a lot of junk food or oily food can lead to gastritis (Inoue et al., 2006). 87.3% of the population were non vegetarian [FIGURE 13]. By asking the patient whether they are a vegetarian or a non-vegetarian, we will get to know they're diet (Saeed et al., 2018). 62.1% of the population consumes meat often [FIGURE 14].

Figure 10: Pie chart depicts the percentage distribution of participants who feel weak at times. Almost 52.4% (dark blue) of the participants felt weak at times while 47.6% (sky blue) did not feel weak at times.

Figure 11: Pie chart depicts the percentage distribution of participants who pass blood in their stool. 7.8% (dark blue) of the participants got blood in their stool which is one of the major symptoms of colorectal cancer. While 92.2% (sky blue) of the participants did not get stool in their blood.

Figure 12: Pie chart depicts the percentage distribution of participants who have gastric problems. 34.6% (dark blue) participants had gastric problems whereas 65.4% (sky blue) did not have gastric problems.

Figure 13: Pie chart depicts the percentage distribution of participants who are non- vegetarians. 12.7% (sky blue) of the participants were vegetarians while 87.3% (dark blue) were non- vegetarians.

Figure 14: Pie chart depicts the percentage distribution of participants who consume meat regularly. Consuming a lot of meat daily can cause a lot of health problems. 62.1% (dark blue) of the participants did consume meat often, 29.1% (sky blue) did not consume meat often and 8.7% (green) were vegetarians.

Figure 15: Pie chart depicts the percentage distribution of participants who get cramps which take time to recover. Getting cramps are normal but ones which last for long are not normal at all. Almost 27.5% (dark blue) of the participants did get cramps which took time to recover while 72.5% (sky blue) did get cramps which did not take time to recover.

Figure 16: Pie chart depicts the percentage distribution of participants who have undergone a screening test (colonoscopy). 6.9% (dark blue) have undergone screening tests while 93.1% (sky blue) have not undergone screening tests.

This information is to know if their meat in take is a lot (Saeed et al., 2018). 27.5% of the population get frequent cramps which take time to recover [FIGURE 15]. Getting frequent cramps can also be a symptom for colorectal cancer (Saeed et al., 2018). 6.9% of the population have undergone screening tests [FIGURE 16]. Many people undergo screening tests to know their health (Al-Azri et al., 2019). 19.2% of the population experienced a

sudden weight loss [FIGURE 17]. This is also a symptom of colorectal cancer (Saeed et al., 2018). 22% of the population's bowel movements had changed [FIGURE 18]. This is also a symptom of colorectal cancer (Saeed et al., 2018).

Figure 17: Pie chart depicts the percentage distribution of participants who had experienced sudden weight loss. Almost 19.2% (dark blue) of the participants have experienced sudden weight loss while 80.8% (sky blue) have not experienced sudden weight loss.

Figure 18: Pie chart depict the percentage distribution of participants who have frequent changes in their bowel movement. 22% (dark blue) of the participant's bowel movements changed while 78% (sky blue) of the participant's bowel movement had not changed.

A. Z. Gimeno Garia had conducted a study on public awareness of CRC and its screening in Spain. The results on awareness were very low while the participants who were willing to participate were very high. Zubaidi had conducted a similar study in Riyadh. And as expected, the results were the same as the above study. The participants had many misconceptions (Gimeno-García et al., 2011). B. John Rozar Raj had studied the relation between coffee consumption and cancer. He had compared coffee consumption with many types of cancer. In the case of CRC, it was seen that about 24% of the participants had lower risk of getting CRC as their consumption level of coffee was very high (Raj, Priya and Gayathri, 2016). Ram S Kalyan had set up a study on awareness of cancer in rural areas.

The awareness of the people in rural areas was considered inadequate, more campaigns and health related programmes had therefore been conducted (Ram and Muthiah, 2019). Pandi had set up an awareness campaign in the United Kingdom, where many were interested in screening tests and which had also increased the demand

for CRC services (Pande et al., 2014). Greenwald. B had promoted a community based on awareness for creating more awareness for CRC. This sort of study brought up many advantages to the community and the participants were more aware than before (Greenwald, 2006). In this study, a little awareness had been spread among the population who had participated. More campaigns and awareness programmes must be conducted to help spread awareness to a larger population.

CONCLUSION

As colorectal cancer is becoming one of the leading causes of mortality in the world, more awareness about it and precautions must be spread which is required for a better life of the general public. People should also be educated on balanced diet and healthy lifestyle modifications for well being. The younger generation who are more aware of such diseases can help educate the elderly people in their family to live a healthy life.

ACKNOWLEDGMENTS

We thank Saveetha Dental College for providing us the full support to conduct the study.

Conflict of Interest: Nil

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