



## A REVIEW ON EARLY WARNING SYMPTOMS OF CANCER AND THEIR ROLE IN EARLY DIAGNOSIS

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### ABSTRACT

Cancer is a huge disease burden throughout the world, with more than millions of new malignant cases diagnosed every year. As per WHO report cancer is the second dominant death cause across the world, accounting approximately more than 10 million deaths in 2020. To reduce the cancer burden, early detection of cancer is essential so that the cancer patient can be treated and managed on time. Early warning symptoms play a deciding role in detecting cancer in an earlier stage and giving treatment on time is most effective. The detection of Early malignant neoplasm is important for introducing effective treatment plan for cure and improved survival rates in the cancer patients. Detecting cancer in early stage may be significantly improve cureness, treatment outcomes and survival rates. It is important to detect cancer in earlier stage to make treatment options more effective and increase the successful treatment chances. Sudden weight loss, persistent Pain, changes in the movement of bowel or bladder habits, unusual bleeding, skin changes are the common early warning signs and symptoms of the cancer disease. This research review analysis aims to discuss the role of early warning symptoms in cancer detection and shedding light on common symptoms associated with different types of cancer. The researcher also explores the challenges and limitations of relying on early warning symptoms and discuss strategies to raise public awareness and education. This research analysis summarises the various aspects of early warning symptoms in detecting cancer in an early stage.

**Keywords:** Cancer, Early Warning, Symptom, Malignant, Treatment

### INTRODUCTION

Every year millions of new cancer patients are detecting and it is becoming major death cause across the world. The detection of Early malignant neoplasm is important for introducing effective treatment plan for cure and improved survival rates in the cancer patients. (Loud et al. 2017). While screening the tests and diagnostic tools mandatory for detecting cancer, early warning symptoms can also play a leading role in recognizing the disease at an early stage. Millions of new people over the world are suffering from serious and complex diseases like cancer (Ma et al. 2006). Early detection can significantly improve the chances of successful treatment and survival. Understanding the early warning signs and symptoms of cancer is crucial for early intervention. Screening tests and diagnostic tools are essential for detecting cancer and early warning symptoms play a vital role in identifying the disease at an early stage (Huggenberger et al. 2015). Due to lack of awareness and delayed medical attention cancer

can't be detected in early stage. Healthcare professional education, regular check-ups public awareness drive may improve the detecting cancer in an early stage. The recognizing early warning symptoms in the cancer patients and seeking medical attention promptly can improve treatment outcomes and survival rates. Public awareness drive and education may improve the public knowledge to recognize the early warning signs and symptoms of cancer and seek medical attention when necessary. This article will guide the reader through the knowledge of early warning signs and symptoms in the cancer patients and highlight the expertise and exposure to detect it an early stage to go through the proper treatment. The Cancer problem is the one of the leading causes death cause worldwide, whereas early cancer detection may significantly enhance survival rates and outcomes of treatment. In cases of cancer, it is necessary to seek immediate medical help and this can be made possible by recognizing the early warning signs. In this research review analysis, the important

early warning symptoms of cancer are focused. Detecting cancer in its initial stages can make a crucial difference in prognosis. If cancer is diagnosed earlier than this is more treatable and a chances of very high survival rate. Regular check-ups and awareness of subtle physical changes are important and effective in diagnosing cancer before it becomes a complicated stage (Jones et al. 2007). Watching the problem and reporting them quickly is important to increase the cure of rate of cancer and better survival. This research will generate the general concept meaning to care teams to how can identify the risks and symptoms of this disease.

## Review of Literature

Early detection of cancer not only increases the chance of survival but also reduces the morbidity concerned with treatment and improves quality of life compared with the patients diagnosed too late (Neal et al. 2015) The early detection and cancer screening goal is to cure cancer by detecting the malignancy, or its precursor lesion, at an early stage before the invasion of indication, when diagnosis and remedy of the cancer disease is more achievable. Cancer treatment plan observed easily and facilitate accurately as per standard and best knowledge setup if it is diagnosed earlier in the suffering patients. The SEER- Surveillance Epidemiology Ends Result Program and the NCRP-National Cancer Registry Program being established and run globally to create cancer reporting network to identifies the associated risk factors and early warning symptoms. These initiatives give us the ideas of cancer screening on time and importance of earlier treatment outcome. In fact, overall mortality of cancer in the United States decreased by 25% from 1990 to 2015, with even greater declines in colorectal cancer death rate by (47% in men and 44% in women) and breast cancer (39% in women). This may be achieved by the facility of high-quality cancer screening techniques for the breast and colon cancer (Byers et al. 2016) When cancer is very high in the healthy population, overdiagnosis and overtreatment of cancer needs on a large scale (Esserman et al. 2014) The screening and diagnosis in general population having high risks of cancer on a large scale results to identifies the cancer suffering patient on time and in earlier stage. Many early symptoms of cancer i.e. change in size of a mole, bleeding after menopause) do not in themselves cause pain or interfere with functioning; as a result, they may not prompt seeking help unless they are recognized as a warning sign of cancer (Quaife et al. 2014)

## Methodology

In this study we followed different sequential stage as identifying study selection, the research question, relevant studies, summarising and describing new ideas. The literature review of this research review analysis has performed using both online and offline available resource material (Moher et al. 2009). These included documents on early warning symptoms of cancer disease in detecting cancer in the early stage globally, regionally and in India. This study method focusing on analysis of patient recovery status and cure in respect of giving treatment in delay and early stage. We have reviewed and analysed the scientific research article to acknowledge the consistency and presence of knowledge for early warning of cancer symptoms relevant to assess the efficacy of early cancer diagnosis on effective treatment and better survival.

## Common Early Warning Symptoms of Cancer

**1. Unusual Bleeding:** Unusual bleeding like vaginal bleeding after menopause or blood in the stool, can be a symptom of various types of cancer, including cervical, uterine, or colorectal cancer. Regular and very different without any trauma or injury in the internal or may be the external organ of the body may be the signs of cancer. (Rayner et al. 2023).

**2. Regular and Persistent Pain:** Regular pain in the external or internal part of what our body doesn't do get cured permanently even after taking analgesics or diclofenac can be a symptom of cancer, usually in the advanced stage. In some cases, even early-stage cancers have pain symptoms, such as bone cancer that causes bone pain (American Cancer Society, 2022).

**3. Changes in The Appearance of Skin:** The abnormal appearance and the change of colour of skin may be the sign of cancer which is not healed normally. Changes in the skin, such as new moles, sores, or changes in existing moles, can be symptoms of skin cancer (National Cancer Institute, 2022).

**4. Changes in The Habits of Bowel Movement:** Gastritis or regular pain in the colon may be the sign of colorectal cancer. Changes in the habits of bowel movement, such as constipation, diarrhoea, or blood in the stool or urine, can be symptoms of colorectal, bladder, or prostate cancer (National Institute of Diabetes and Digestive and Kidney Diseases, 2022).

**5. Unexplained Weight Loss:** Acute weight loss and physical backwardness may be the warning symptoms of cancer who is suffering from unknown complications from a long time and the disease has not been diagnosed. Sudden and unexplained weight loss



can be a symptom of various types of cancer, including pancreatic, lung, and stomach cancer (National Cancer Institute, 2022).

### Early Cancer Detection Importance

**1. Recognize Early Cancer Warning Signs and Symptoms:** There are many advances of recognizing early warning symptoms of cancer to detect cancer in the early stage. Treating cancer in the early stage may be more cost-effective than treating advanced cancer, which often requires more extensive and expensive treatment. The recovery rate of early stage cancer is higher than the cancer cases detected in too advanced stage.

**2. Treatment Effectiveness:** Timely cancer detection is important to improve treatment outcome. This increases the life expectancy of cancer patients and their chances of survival are higher. Early detection can significantly improve the chances of successful treatment and survival. When cancer is detected in early stage, the options of treatment are more effective, and the possibility of successful treatment is higher (Benton et al. 2024).

**3. Less Aggressive Treatment:** Early stage cancers generally need less aggressive remedies and treatments, which reduce the risk of side effects and improve the patient's quality of life. Early stage cancer patients are more stable comparatively the patients who diagnosed too late.

**4. Increased Survival Rate:** The rate of better survival is generally seen in the cancer patients who diagnosed earlier through detecting important early warning symptoms and regular screening processes in the high risk population. Survival rate of cancer patients may increase by early detection and give the proper treatment as per patient need.

**5. Improved Quality of Life:** The quality of life in the cancer patients are better who diagnosed earlier and treated on time. The quality of life influenced the cancer patients psychologically, physically and emotionally. Quality of Life also depends on the series of treatment given to the cancer patients. If the patients needed received the treatment giving only surgery than these patients have less complication comparatively the patients who treated by Surgery with Chemotherapy and Radiotherapy both.

### Challenges and Limitations

While early warning symptoms can be useful in detecting cancer, there are challenges and limitations to consider:

**1. Delayed Medical Attention:** Delayed medical attention is a major challenge in the cancer patients. Delayed medical attention can lead to delayed diagnosis and treatment, which can impact survival rates (National Cancer Institute, 2022).

**2. Nonspecific Symptoms:** Many early warning symptoms are nonspecific and can be similar to those experienced with other conditions. Nonspecific symptoms in the cancer cases does not alert the patients on time and clinician take a long time in the diagnosis due to need of higher and advanced techniques of cancer detection and result interpretation. (Allgar et al. 2005).

**3. Lack of Awareness:** This is also a major challenge to detect cancer at an early stage due to lack of awareness. Some persons may not be sensible of the early warning symptoms of cancer or may not recognize their significance (Rebbeck et al. 2008).

**4. Long Diagnosis Procedure and Anxiety:** In the cancer patients due to need of verification of histopathological examination and unavailability of advance diagnostic facility the treatment process is delayed in most of the cases in India. Delayed process of diagnosis and treatment in the cancer patients they are suffer from heavy anxiety and hopeless.

**5. No Symptoms in the Early Stage:** Many types of the cancer like ovarian, pancreatic and colorectal are symptomatic in the early stage and mostly not appear as long as there are no symptoms until they are in advanced stages. In these types of cases the cancer is not detectable in early stage without using proactive imaging like MRI, CT, PET Scan, biopsy etc. For this reason, many of cancer cases too delayed in treatment.

### Strategies for Improving Public Awareness and Education

**1. Regular Check-Ups:** It is need to encourage individuals to undergo regular check-ups and screenings to detect cancer in the early stage who reside in high risk population and having family risk history of cancer. In some cases, cancer genetically relate with parents in the patients. (Huggenberger et al. 2015).

## 2. Healthcare Professional Education:

Educate healthcare professionals about the early warning signs and symptoms of the cancer and the importance of immediate treatment and diagnosis in the view of strategies to improving public awareness and education about the cancer is very needful. (Ma et al. 2006).

## 3. Public Awareness Campaigns:

Launching the public awareness campaigns to educate individuals about the early warning symptoms of cancer in the general population who is in high risk should need to be incorporate essentially to defeat the cancer by detecting at an early stage. (Loud et al. 2017).

## 4. Advocacy by the Cancer Survivor:

By sharing personal stories and real life experiences in the media and public domain the cancer patients may alert the general peoples and give the self-confidence and treatment lifestyle strategies to the cancer suffering patients. Cancer is complex disease and there is major diversity of symptoms and recovery condition in the patients. These challenges may be mitigating by advocacy by the cancer survivors by sharing their personal experiences and strategies.

**5. Cancer Knowledge in General Education Curriculum:** There are several risk factors of cancer that can be changed and are related to lifestyle. We can fight cancer and reduce the cancer rate by understanding the risk factors for cancer and improving our lifestyle. Cancer is also concerned to lifestyle problems. There is requiring to develop education systems regarding cancer and public health concerns.

## Conclusion

Early warning symptoms play a leading role in detecting cancer in the early stage. Recognizing these symptoms and seeking medical attention promptly can improve treatment outcomes and survival rates. Public awareness drive and education may help the personal to recognize the early warning symptoms of cancer and seek medical attention when necessary. In the present scenario of global pollution status and increased presence of carcinogen in the environment, human population affected by the cancer burden on huge level and it will be become a pandemic in future if we are not initiating the strategies to prevent and control it. Most of the cancer cases may be control and cure if it is diagnosed in early stage. Public awareness and campaigning in the view of knowledge of early warning symptoms may improve the recovery of cancer patients. Early treatment and diagnosis play a crucial role for best cure of cancer

patients. Screening and histopathological diagnosis facility should be incorporate in the concept of surveillance system and need to be develop these facilities at community level. Routine screenings such as mammograms, Pap smears, colonoscopies, and PSA tests help detect cancers before appearing the symptoms. If a person has a family risk history of cancer, they should must to be consult their doctor and get regular check-ups done and pay attention to the symptoms. Staying alert to changes in your body and scheduling regular health check-ups may significantly improve treatment outcomes by detecting cancer in the early stage. If you notice any persistent or unusual and bothersome symptoms, consult a doctor without any delay as early detection of cancer ensures timely diagnosis and specialist care which helps in treating the patient. Stay informed, stay proactive! This study has identified the common reported symptoms in the cancer patients of so that risk factors can identify with correlation of environment exposure and plan a policy and general awareness to people for mitigate these challenges.

## Author Contributions

The author has read, reviewed and approved the final text and contributed originally to this research review analysis.

## Declaration of Conflict of Interest

The authors declare that they have no commercial or financial relationships that could be construed as a potential conflict of interest.

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