

Increasing Cancer Rates in Women

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ABSTRACT

This research paper explores the increasing cancer rates in women and the factors contributing to this trend. The paper discusses the prevalence of breast, colorectal, and lung cancer in women and their classification into four stages. It examines the impact of processed food, alcohol, and obesity on cancer risk in women, with a focus on breast cancer. The paper concludes that a healthy lifestyle, including a balanced diet, regular exercise, and limited alcohol consumption, can significantly reduce the risk of cancer. The importance of early detection and genetic testing is also highlighted. The research suggests that prevention is better than cure, and avoiding external factors can help women lead a healthy and fulfilling life.

Keywords: Cancer, diet, obesity, alcohol consumption, processed food, detection.

Subject: Oncology

INTRODUCTION

Cancer is a grave illness that has become a major concern for global health. The uncontrolled growth and proliferation of cells in the body cause cancer. The National Cancer Institute predicts that by 2040, the incidence of cancer will rise to 29.5 million new cases annually, with 16.4 million cancer-related deaths (Cancer Statistics, 2020). The most common types of cancer in women are breast, colorectal, and lung cancer, with breast cancer being the most prevalent worldwide. Cancer is classified into four stages: stage one is the presence of cancer cells, but they have not spread to lymph nodes or other tissues. Stage two is when cancer has grown but has not metastasized. Stage three is when cancer has grown larger and may have spread to the lymph nodes and other tissues. Stage four is when it has spread to other organs or regions of the body, and it is generally incurable. The process by which cancer cells spread to other parts of the body is known as metastasis. Regular clinical self-examination can prevent breast cancer from reaching stage four in most cases, and testing for mutations in the BRCA1 and BRCA2 genes is also a part of the process. People who inherit harmful variants in these genes have an increased risk of developing several other cancers and tend to develop cancer at younger ages than those who do not have such variants.

Multiple factors can cause cancer, including a high consumption of processed food, excessive alcohol consumption, and obesity. This research paper will examine the causes of cancer and their impact on women.

DISCUSSION

Processed Food

One of the factors that increase the risk of cancer is the high consumption of processed food. Intake of processed food has increased a lot in the last 10 years. People, especially women who today don multiple hats are occupied with their work and responsibilities have limited time to invest in a regular healthy diet plan. Consequently, they often eat processed food. High consumption of processed food can result in a higher risk of getting cancer (BMJ, 2018). Ultra-processed fats and sauces, and sugary products and drinks are associated with an increased risk of overall cancer. Furthermore, ultra-processed sugary products are associated with an increased risk of breast cancer. Overall, increased intake of processed food leads to a significant increase of 12% in the risk of overall cancer and 11% in the risk of breast cancer (BMJ, 2018). Thus, it is suggested to primarily eat healthy, non-processed food.

Alcohol

High consumption of alcohol is another factor that increases the risk of cancer. When a person drinks alcohol, their body breaks it down into a chemical known as acetaldehyde. These chemical damages the DNA and prevents the body from repairing it. When the DNA is damaged, cells can begin growing out of control and can create a cancer tumor. In women, it can increase the level of estrogen - the sex hormone in women- which increases the risk of breast cancer. Studies have also shown that a woman's risk of breast cancer is related to the estrogen and progesterone made by her ovaries (known as endogenous estrogen and progesterone). Being exposed for a long

time and/or to high levels of these hormones has been linked to an increased risk of breast cancer (Hormones, 2015). Light drinkers have a slightly increased risk of breast cancer than nondrinkers. Light drinkers only have a 1.04-fold higher risk. The risk increases in moderate drinkers and heavy drinkers. Researchers believe that the ethanol or alcohol in beer, wine, and liquor increases the risk of cancer. Thus, it is suggested to avoid 100-proof liquor. More generally, it is suggested to avoid alcohol as much as possible. Only occasional consumption is recommended.

Obesity

Obesity is a recognized risk factor for various types of cancer. While being obese does not necessarily imply that a person will develop cancer, research indicates that they are at higher risk than those with a healthy weight. Maintaining a healthy weight can also lower the risk of developing conditions like heart disease and stroke. In the body, excess fat is not inert, but rather active and releases signals that can affect the body's processes. These signals can cause cells to divide more frequently, leading to the development of cancer (CDC, 2022). For example, excess fat can cause the level of growth hormones to increase, resulting in more frequent cell division and a higher risk of cancer. Women who are postmenopausal have higher levels of estrogen produced by fat cells. This increase in estrogen can cause cells in the breast and uterus to divide more frequently, raising the risk of cancer in women (CDC, 2022). Therefore, weight loss or prevention of weight gain may help reduce the risk of cancer.

CONCLUSION

Cancer is a potentially fatal disease with numerous risk factors. Early detection is crucial in preventing its progression. A healthy lifestyle, including a balanced diet, regular exercise, and abstaining from alcohol consumption, can significantly lower the risk of cancer. In some cases, however, cancer may be hereditary and difficult to prevent. Modern genetics can help identify if a woman has developed breast cancer due to hereditary factors or lifestyle choices. Research is continually advancing, and the world is making significant efforts to combat the significant threat of cancer in women. Genetic testing can identify harmful gene variants that may suggest the likelihood of inherited cancer among siblings or offspring. Hope remains that markers will be discovered soon to detect cancer in its early stages. As prevention is better than cure, it is recommended to avoid external factors as discussed in this article to lead a healthy and fulfilling life.

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