

Cancer: A Review Of Current Trends

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Abstract: *Cancer is a complex disease that arises from various interactions between genes and environmental factors and globally leading cause of death.*

Risk of cancer can be reduced by making healthy lifestyle choices, avoiding known cancer-causing substances, and getting vaccinated. When body cells grow and spread uncontrollable cancer occurs. Almost cancer can start in any organ or tissue cancer is a genetic disease caused by changes in our genes that control cells to grow and divide. These changes happen when cells divide, damage to DNA from harmful substances and inherited genetic mutations from our parents. Cancer is caused by changes to DNA in cells. These changes can be due to environmental factors like use of tobacco, diet, obesity, inherited genes. Nutrition is essential for our health and plays a crucial role in medicine.

Keywords: *Cancer, Diet, Lifestyle.*

Cancer can be classified as hematologic (blood) cancer or solid tumours. Cancers are named for the part of the body they start including breast, lungs, prostate, and colorectal cancer. Cancerous tumors can spread into nearby areas or other parts of the body and also come back after being removed but non-cancerous tumors cannot spread once removed, do not grow back.

In the brain it can still grow large and causes problems. Blood cancers like leukemia do not create solid lumps. (Srilakshmi 2006)

Body cells grow, divide, and replace the old or damaged cells in a balanced way. In cancer damaged or abnormal cells keep growing and form lumps called tumors globally. Cancer is a major cause of death and puts a huge strain on individuals, families, communities, and health systems.

Early detection and new treatments have improved survival rates for many types of cancers and treated successfully for many people. Risk of cancer can be reduced by living a healthy lifestyle, avoiding tobacco, and protecting from the sun. Effective treatment of cancer requires understanding the nature of disease and also the root cause. General cancer risk factors include poor nutrition, an acidogenic diet, an unhealthy lifestyle, and exposure to carcinogens such as toxins chemicals and radiation. (B.ahrani 2023).

Vitamin C and Vitamin A and some components in pure Ghee have an anti-cancer properties spices like garlic and mustard seeds also exhibit potential protective effects against cancer. Vegetables like broccoli, kale and cauliflower contains glucosinolates may help to fight cancer. Improving nutritional status is essential for enhancing effective treatment and reducing mortality rate. During cancer treatment balanced diet is vital for maintaining strength resilience (Joshi 2015)

Breast cancer is the most common cancers in women and the second leading cause of their death due to the cancer, colorectal cancer is one of the major causes of morbidity and mortality throughout the world prostate cancer is one of the most frequently diagnosed cancers in men worldwide. (IARC 2020).

Generally, women have never breast feed a baby or breast feed for short periods of a few months, their breast cancer risk may be higher compared to the women who breast feed their new born for 24 months and their breast issue are repeatedly oxygenated for a sufficiently long period. (Woodman 2002)

The risk of developing cancer in the breast may also be increased by wearing a tight bra for many hours a day, use of contraceptives pills over long time, frequent mammography screening, regularly using plastics bottles for drinking water (Rios and chen 2016)

Major root cause of stomach cancer is unhealthy dietary habits, particularly frequent consumption of vegetable pickles

preserved in vinegar and salt which gradually damaged the stomach lining over the long term. People having food with pickles vegetables as side dish may have higher risk of developing stomach cancer. (Brunicardi et al, 2014)

Diet is fundamental to prevent chronic diseases and maintain health in cancer survivors long term survivors of childhood cancers are at a greater risk of developing numerous diets related chronic disease such as obesity, diabetes, and heart disease at younger age than the general population. The prudent dietary patterns include higher intake of fruits, vegetables, fish, legumes, and whole grains was associated with a 36% lower risk of death. (Yang et al 2017)

Malnutrition is a significant issue for many cancer patients leading to loss of appetite and weight. Malnutrition has serious effects on cancer treatment and recovery. Different types of cancer present unique different challenges in a serious global health issue. Diet plays a crucial role in cancer prevention as high-fat diets are linked to increased risk of breast and colon cancer. High intake of meat is associated with a higher risk of colon cancer. Life style like exercise alcohol consumption and smoking contribute mouth, throat, and lung cancer. Cigarette smoking was positively associated with rectal cancer risk for men (Shimizu et al 2003). Plant based diet consisting of minimally processed vegetables, fruits, whole grains, legumes, nuts, and seeds improve health through various mechanism such as increased fiber intake, decrease saturated fat intake and increased intake of essential vitamins and minerals. (Mathew et al 2024)

Adopting combined approach of a healthy diet and lifestyle including weight management, physical activity, alcohol and smoking avoidance and a diet rich in fruits, vegetables, whole grains, cereals, red and processed meat help to lower breast cancer risk in females (Konieczna et al 2024)

In breast cancer mortality rates are increasing, highlighting the need for lifestyle modification to reduce mortality rates. Lifestyle modifications must be made for breast cancer patients to improve quality of life. (Putri et al 2024)

Cluster analysis with energy-adjusted factors score was used to categorize survivors into a mutually exclusive dietary pattern. Among dietary patterns the fast-food pattern (36%) was the most common followed by the western contemporary (30%) the plant based (20%) and the animal based (14%). Dietary pattern were the primary outcomes. In survivor males, younger age, lower educational attainment, and physical inactivity were associated with the fast food, western contemporary or animal-based pattern. (Lan et al 2024)

The goals of nutritional therapy in cancer patient is to prevent undernutrition, enhance the effectiveness of antitumor treatments, reduce side effects of treatment and to improve quality of life. Weight loss is common at the time of cancer diagnosis and sometimes severe malnutrition often develops in the later stage of the diseases leading to death. Physical activity reduces the risk of several types of cancers. Obesity plays a big role in the development of cancer may be improved by making changes to lifestyle factors. Healthy life style is key to prevent cancer disease. Physical activity can reduce cancer risk by decreasing body fat, regulating hormones, and balancing energy. Promoting a healthy lifestyle is essential (Momayyezic et al 2015)

Patients with high compliance with the Mediterranean diet had a higher quality of physical, emotional, and social life. Evaluation of modifiable risk factors in breast cancer patients is essential for the prognosis of the disease. The Mediterranean diet is a beneficial approach for improving the quality of life for the breast cancer patients. (Durumu et al 2023).

Clear soups, raw vegetables, fruits and juices, leafy vegetables and soybean, curds reduced early gastric cancer risk. However, high intake of salt fermented fish increased the risk of early gastric cancer. (Lee et al 2002)

Individuals with healthiest lifestyle had lower risk of bladder, breast, colon, endometrial, oesophageal, Kidney, Liver, Lung, Rectal and Gastric cancer. The study concludes that adopting healthy lifestyles is associated with substantial reductions in cancer morbidity and mortality. (Zhang et al 2020)

Nutrition plays a crucial role in wellbeing with 30-50% of all cancer cases being preventable through a healthy diet and lifestyle. A balanced plant-based diet with limited fast foods, sugar sweetened drinks, red meat and alcohol is recommended for enhancing health & preventing cancer and other non-communicable diseases. Colorectal cancer is a prime example of the importance of nutrition in cancer prevention. (Krebs et al 2019)

Cancer is a global health issue with a rising incidence making it the primary cause of death. Healthy lifestyles such as maintaining healthy weight, balanced diet, physical activity, avoiding smoking, alcohol, Sun exposure and vitamin D supplementation are linked to the development progression and severity of breast, colorectal and prostate cancer. Lifestyle significantly influence cancer development prevention. (Marino et al 2024)

Over 40% of cancer fatalities and disabilities adjusted life years are linked to modifiable lifestyle factors controlling lifestyle factors like diet, exercise, smoking and alcohol consumption mitigate cancer risk. Institutions have formulated guidelines to reduce cancer risk including maintaining a healthy weight, physical activity, a balanced diet, limiting alcohol, smoking, avoiding excessive sunlight and breast feeding. Dietary habits including a varied intake of fruits, vegetables, whole grains, and legumes are also crucial. (Wolnicka 2024)

CONCLUSION

Consumption of high dose of artificial supplements of vitamins and minerals may be linked to various cancers. Dietary factors particularly diet dependent acid load may significantly influence the risk of developing cancer. A high intake of acidogenic foods is associated with cancer. Consuming alkaline substances does not have a proven health benefits in terms of cancer prevention or treatment. Western modern dietary patterns increase the risk of developing cancer due to being high in unhealthy animal proteins, synthetic sugar refined carbs, processed cereals, and caffeinated sugary drinks. But traditional natural diets reduce the risk of cancer by providing a wide range of vitamins, minerals, enzymes, coenzymes, antioxidants alkalizing compounds and various anticancer substances, colorectal cancer is a disease strongly

influenced by dietary habits, such as high intake of dairy products, red and processed meats, and alcohol. An unhealthy diet, smoking, alcohol, and exposure to environmental contaminants may be the some of the main root cause of prostate cancer. Controlling cancer effectively requires understanding the nature of the disease and knowing the major root cause. People in the same family get cancer because they share behaviors, lifestyles or living conditions that raise their risk not because they share genes. Major risk factors of cancer include unhealthy dietary habits, long lasting acidosis, smoking, consumption of alcohol and addictive drugs, sleep disorders, chronic insomnia, use of chemical cosmetics, infection, stress, physical inactivity & environmental factors such as exposure to toxins & radia ons.

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