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## Perspective

# A brief note on surgery and radiation therapy for cancer treatment

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#### INTRODUCTION

Cancer can be treated using a combination of surgery, chemotherapy, radiation therapy, hormonal therapy, targeted therapy, and synthetic lethality. The type of therapy chosen is determined by the location, grade, and stage of the tumor, as well as the patient's overall health. Cancer genome sequencing aids in determining which cancer a patient has in order to determine the best treatment for the cancer. The several cancer experimental treatments are also being developed. According to current estimates, two out of every five people will develop cancer at some point in their lives. The Cancer is a group of diseases characterized by abnormal cell growth and the ability to invade or spread to other parts of the body. These aren't the same as benign tumours, which don't spread. A lump, unusual bleeding, a prolonged cough, unexplained weight loss, and a change in bowel movements are all possible signs and symptoms. While these symptoms may indicate cancer, they could also be caused by something else. Humans are affected by over 100 different types of cancer.

#### Surgery

Non-hematological cancers can be cured in theory if completely removed by surgery, but this is not always possible. When cancer has spread to other parts of the body before surgery, complete surgical excision is usually impossible. Tumors grow locally, and then spread to lymph nodes, then to the rest of the body, according to the Halstedian model of cancer progression. This has increased the popularity of localised treatments, such as surgery for small cancers. Even small, localised tumours are increasingly being recognised as having the potential for metastatic spread. Surgery is a medical or dental specialty that employs operative manual and instrumental techniques on a person in order to investigate or treat a pathological condition such as a sickness or damage, to aid in the improvement of body function or attractiveness, or to mend portions that have burst. Metastasis is the spread of a pathogenic agent from its

initial or primary site to a different or secondary site within the host's body; the term is most commonly a cancerous tumor's metastasis is referred to as metastasis. Thus, the newly pathological sites are metastases (mets). Cancer invasion, on the other hand, is the direct extension and penetration of cancer cells into neighbouring tissues. The final verdict was symptoms of PTSD, symptoms such as are a mental health illness brought on by watching or experiencing a horrific incident. Uncontrollable thoughts about the event, flashbacks, nightmares and intense anxiety are all possible symptoms. Finally, PTSD can impact a wide range of persons. This is a fairly prevalent illness and many more people than we may realize suffer from it these days. Each symptom and indicator of PTSD may differ from one person to the next. Reliving a traumatic event through flashbacks, dreams, or nightmares is one of the signs and symptoms that someone with this disease may experience. There is no upper age limit for PTSD.

#### **Radiation therapy**

Radiation therapy (also known as radiotherapy, X-ray therapy, or irradiation) is the use of ionizing radiation to kill cancer cells and shrink tumours by damaging their DNA (the molecules inside cells that carry genetic information and pass it down from generation to generation), making these cells unable to grow and divide. Radiation therapy can either directly damage DNA or create charged particles (free radicals) within cells, which can then damage DNA. External Beam Radiotherapy (EBRT) or internal brachytherapy can be used to deliver radiation therapy. The radiation therapy or radiotherapy, also known as RT, RTx, or XRT, is a type of cancer treatment that uses ionising radiation to control or kill malignant cells. It is typically delivered by a linear accelerator. Radiation therapy may be curative in a variety of cancers if they are limited to a single area of the body. It may also be used as adjuvant therapy to prevent tumour recurrence after primary malignant tumour removal surgery.

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