Cancer: An Unknowable Curse

Kaleb C. Stone

Stone Educational Institute

Honors Biology

Stacie D. Stone

May 27, 2022

Cancer: An Unknowable Curse

Roughly 40% of people are likely to get cancer at some point in their lives, and among those 30% will die. That number is averaged across all types of cancers, which means some have higher odds of survival, such as kidney and prostate cancer, while others have dismal odds, such as lung and pancreatic cancer. This makes cancer one of the scariest diseases in the world. On top of all that, it is known for being extremely difficult – and oftentimes impossible – to cure. Even if you do survive having cancer, that victory may come at a great cost. That is why cancer is seen as horrible and terrifying, despite being relatively rare (Seer cancer stat facts 2022).

Cancer is, on a base level, deformed cell growth. Cancer cells are the result of cells failing to replicate properly and mutating. These cells do not function as they are meant to and can cause a variety of symptoms, many of which are life-threatening. Clusters of mutated tissues are called tumors, and they are the centers of cancer growth. There are two types of tumors: benign and malignant. Benign tumors are, comparatively, a non-issue, as they are slow to grow and do not invade other parts of the body. Cancer as we know it results from malignant tumors, also known as cancerous tumors. Malignant tumors grow rapidly, expanding into other parts of the body, sometimes entire systems, and eventually maybe even reaching all across the body (*Cancer* 2019).

What exactly can cause cancer is mostly unknown. Cancer frequently appears in people for little to no discernable reason, and many researchers are hard at work to figure out why that is. There are, however, still some factors that are observed to increase a person's risk of cancer. Exposure to radiation is a common risk factor in patients, along with exposure to other potentially dangerous chemicals. Someone may also be at higher risk if cancer runs in their family, as some forms are known to be in some way genetic, especially childhood cancers (*Cancer* 2019). A person's sex may also be a factor, especially in some variants such as breast or prostate cancer (*Seer cancer stat facts* 2022). There are also various, more specific, causes of certain cancers. For example, lung cancer is most commonly seen as a result of smoking, or otherwise inhaling dangerous foreign substances (S. Patil & S. Mahajan, 2022). Though, in the end, most causes still remain unknown (Vlooswijk et al., 2021).

There are several methods used to attempt to cure or control cancer. Two common methods of treatment and control across all cancers are chemotherapy and radiation therapy. Both of these methods seek to kill, or at the very least shrink, the tumors and cancer cells within the body. Chemotherapy attempts this by exposing the patient to anticancer chemicals; radiation therapy attempts it by exposing them to high-energy radiation. These treatment methods are often at least somewhat effective in inhibiting the disease and are frequently top choices for cancer treatment. The main issue with these methods is that they can cause

future resurgences of cancer due to radiation or chemical exposure, and that they greatly weaken the patients immune system while they are under the effects of it.

There are also a variety of pre-emptive measures one can take if they have a genetic history of cancer (*Cancer* 2019).

Surgery is quite often the most effective means of treating cancer. It is the oldest form of cancer treatment, yet it is still extremely effective against many types. Though greatly effective it may be, undergoing cancer surgery often comes with great risk and sacrifice. The way surgery is most commonly used to treat cancer is to remove the tumor from the patient's body entirely. The act of doing this, however, often means losing muscle mass or organ tissue, which can cause further complications for the patient for the rest of their life. A patient may also find themself at risk of infection, blood loss, or various other illnesses such as pneumonia. The risks and sacrifices are most definitely worth it in the end, as surgery can often lead to survival, which is worth any other personal sacrifice (Cancer 2019).

Cancer may be a mysterious and deadly disease, yet it is not without hope. Being diagnosed with cancer is not the end. Despite being challenging, cancer can be beaten. It may take some risks, and it may take sacrifice, but it can be done. If one is willing to take the required risks and make the necessary sacrifices – as well as have a little luck – it is possible to make it through even the deadliest diseases.

References

- National Cancer Institute. (2022). *Seer cancer stat facts*. SEER. Retrieved May 24, 2022, from https://seer.cancer.gov/statfacts/
- Cancer. Stanford Health Care (SHC) Stanford Medical Center. (2019, December 3). Retrieved May 24, 2022, from https://stanfordhealthcare.org/medical-conditions/cancer/cancer.html
- Patil, P. S., & Mahajan, H. S. (2022). Lung Cancer: How Well We Have Fared?. *Indo Global Journal of Pharmaceutical Sciences (IGJPS)*, 12, 82–91. https://doi.org/10.35652/IGJPS.2022.12007
- Vlooswijk, C., Husson, O., Oerlemans, S., Ezendam, N., Schoormans, D., de Rooij, B., & Mols, F. (2021). Self-reported causes of cancer among 6881 survivors with 6 tumour types: Results from the profiles registry. *Journal of Cancer Survivorship*. https://doi.org/10.1007/s11764-021-00989-w