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MICR 3233

4-26-22

**Thyroid Cancer and How to Treat It**

**Abstract**

Thyroid cancer is a cancer that almost every ordinary person in society may not know about but for medical professionals it is one that should be brought attention to. It occurs when the Thyroid gland which is located directly below the Adam’s apple develops mutations in its cells. This phenomenon has puzzled many cancer researchers as it has been hard to pinpoint what actually causes these mutations to form. This cancer even though rare in form has many distinct traits with it being affecting women more than men as women a higher diagnosis rate. This is yet another question that even the best and most respected cancer researchers across the globe do not have an answer to. These questions have sparked researcher efforts to really understand the mysteries and secrets that Thyroid cancer entails. What we do know is that Thyroid Cancer is a rarer form of cancer making up around 1% of new cancer diagnoses in America each year. It is also the most common and frequently diagnosed endocrine cancer with Thyroid Cancer causing more fatalities than any other endocrine cancer.

**Introduction**

The American Cancer Society which is a well-known organization that has been praised by many in the field of cancer research. This organization has led the way in preventing and treating cancer and also is one of the leading organizations for cancer research in the world with a presence and influence in more than 5,000 communities across the United States. The official website of the American Cancer Society is a very helpful tool in looking up for any statistics on any type of cancer. According to the numbers that the American Cancer Society provided on their official website that in just the United States alone there was some where in the ballpark of 43,800 new cases of Thyroid cancer in the year 2022. When breaking down the numbers even further we can see that of the 43,800 new Thyroid Cancer cases 11,860 were men and 31,940 women as mentioned in the abstract above this is one of the most notable characteristics about this rare form of cancer. Some other statistics that are in need of bringing attention to are that most patients diagnosed with Thyroid Cancer at a younger age than most other adult cancers with many patients finding out in their third and fourth decades of life. Thyroid cancer is most notable in women as it is the fifth most common form of cancer among women of all ages. Women have also been found to be 3 times more likely to develop Thyroid cancer compared to men this has led to many researchers to look into why there is such a huge diagnoses gap between genders. The only explanation that cancer researchers have been able to come up with to explain this disparity between the diagnoses rate in females and men is that women are more likely to develop Thyroid nodules compared to men. Even with all these terrifying and frightening statistics Thyroid cancer has one of the highest lowest death rates which only increased at about 0.6% per year between the years of 2009 and 2018 and an overall survival rate of 95%. Nonetheless even though there is a very high survival rate after being diagnosed with Thyroid cancer it is still important to look into successful prevention strategies to help lower one’s risk in developing Thyroid Cancer. Though most of the people who contract Thyroid Cancer inherit in from another relative who is a carrier for the mutated gene that causes the cancer. There are still some risk factors that cancer researchers would like everyone to know about so that they can help better their chances of not contracting Thyroid cancer. This medical knowledge was largely unknown as a few decades ago we had no idea on if there were anything outside of genetics caused Thyroid Cancer. Now thankfully we have made leaps and bounds in medical advancements and we have now been able to figure out that there are risk factors associated with Thyroid Cancer. Some of the most notable risk factors for Thyroid Cancer are being exposed to ionizing radiation while during adolescence which itself is the highest risk factor for Thyroid Cancer. Iodine deficiency has been known to increase benign Thyroid tumors, High Iodine levels also affect the function of one’s thyroid and High intake of vegetables from the cruciferous family which are vegetables such as cauliflower, cabbage, kale, garden cress, bok choy, broccoli, Brussels sprouts, mustard plant and other green leafy vegetables that are similar. The final risk factor is one that almost all cancers share and that is keeping a healthy diet and precipitating in physical exercise. The uncommon trait of the Thyroid cancer to note is that alcohol had no effect on the risk of developing Thyroid cancer while in almost all other cancer alcohol was a risk factor. Many researchers have taken all these risk factors into consideration and came up with the conclusion that for a person to lower the risk of developing Thyroid cancer one must do as follows. That is a person must avoid ionizing radiation, The consumption of too much fish which has iodine in and can cause high levels of iodine if it is over consumed and eating too much vegetables can also put someone at risk.

Recalling back from the statistic that was mentioned the survival rate for someone diagnosed with Thyroid cancer being 95% this statistic has been made possible for many years as the treat plans and surgeries for Thyroid cancer have a very high success rate. There are many forms of treatment for Thyroid Cancer with the most common being Thyroidectomy which is a surgery that involves the removal of the Thyroid gland. This surgery is performed when the surgeon makes incision no more than a few inches long across the neck of the patient. There are two types of Thyroidectomies which are Total Thyroidectomy which like its namesake is the total removal of the Thyroid gland. Then there is Near-Total Thyroidectomy which again like its namesake is when nearly all of the thyroid gland is removed from the patient. This surgery will result in the patient having to take the thyroid hormone pill levothyroxine and the patient will also have a temporary scar across their neck from the surgery. There is one positive affect from this surgery and that is the ability for doctors to test the possibility of the cancer recurring by using test like radioiodine scans. Even with the positive of detecting reoccurrence there are some negatives to surgery. These negatives are as follows temporary or permanent hoarseness of one’s voice, infection, damage of one’s parathyroid glands and the formations of hematomas in the neck.

**Discussion/Conclusion**

Thyroid cancer which is one of the rarest and most misunderstood forms of cancer that had puzzled some of the best and most well-known researchers for years. Thankfully with the advancements in both medical technology and knowledge we are finally able to under the risks that may lead to the formation of Thyroid Cancer. This has led to the public being educated so that they can adjust their lifestyle so that they can reduce their risk of being diagnosed with Thyroid Cancer. We are also able to safe treat and remove the thyroid gland so that cancer does not spread ultimately saving the life of the patient and ensuring that they live the rest of the life cancer free.

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