



THYROID CANCER

Surveillance for thyroid cancer in survivors of childhood and young adult cancer needs to be discussed between survivors and their healthcare providers

BACKGROUND

It is estimated that as of 2014 there were 419,000 survivors of childhood cancer in the United States. Further, children and young adults who are survivors of cancer have a higher risk to develop thyroid nodules and thyroid cancer since most treatments included radiation therapy. It is now clear that the once-held belief that high-dose radiation exposure destroyed thyroid tissue rather than causing cancer is incorrect. However, there is no consensus on surveillance for these survivors.

The main goal of the International Late Effects of Childhood Cancer Guideline Harmonization Group (IGHG) is “to establish a common vision and integrated strategy for the surveillance of chronic health problems and subsequent cancers in childhood, adolescent, and young adult cancer survivors”. Thus, the objective of this study was to develop guidelines for thyroid cancer surveillance in survivors of childhood, adolescent and young adult cancer.

THE FULL ARTICLE TITLE

Clement SC et al. 2018 Balancing the benefits and harms of thyroid cancer surveillance in survivors of childhood, adolescent and young adult cancer: recommendations from the International Late Effects of Childhood Cancer Guideline Harmonization Group in Collaboration with the PanCareSurFup Consortium. *Cancer Treat Rev* 63:28–39. PMID: 29202445.

SUMMARY OF THE STUDY

The IGHG in collaboration with the PanCareSurFup Consortium put together a panel of 33 international experts to formulate recommendations based on the available research. First, the existing recommendations were compared, and agreements and disagreements were determined. Then, after they discussed the possible benefits and harms of surveillance, the following questions were asked: who needs screening, what surveillance

method should be used, how frequently and for how long should thyroid cancer surveillance be performed and, what to do if abnormalities are identified. The PubMed database was the principal source to look for answers. Two members of the panel analyzed each paper. The level and strength of the recommendations, based on the available data, were graded according to well-established methods.

Childhood and young adult cancer survivors treated with radiotherapy or ¹³¹I-metaiodobenzylguanidine (MIBG), which accidentally exposes the thyroid gland, are at increased risk for the development of thyroid cancer. There is no data showing that chemotherapy alone is associated with a higher risk. As there is benefit of detecting thyroid cancer early, surveillance for thyroid cancer is reasonable for at-risk survivors. Childhood and young adult cancer survivors need to be counseled by their health care provider regarding their risk, as well as the advantages and disadvantages of surveillance. However, the authors were unable to provide recommendations regarding the preferred surveillance method to detect a thyroid nodule (neck palpation vs. thyroid ultrasound) and recommended that the decision be made by the individual healthcare provider after discussing with the patient. It was found reasonable to begin surveillance 5 years after exposure. The panel suggested that, if periodic thyroid palpation is chosen as the screening, it may be reasonable to repeat surveillance every 1 to 2 years, while, if thyroid ultrasonography is chosen as the screening method, to repeat surveillance every 3 to 5 years. Referral to a thyroid specialist is recommended if a thyroid nodule is found by either method of surveillance.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Childhood and young adult cancer survivors at risk for thyroid cancer should be counseled about risk and benefits of surveillance and the available options for surveillance. However, there is no data to provide specific recom-





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mentations. Initiation of surveillance and the surveillance method used needs to be chosen by the health care provider in consultation with the patient. This article highlights the importance of counseling and discussion,

summarizes available evidence and emphasizes the need for more research in this area.

— Liuska Pesce, MD

ATA THYROID BROCHURE LINKS

Thyroid Cancer (Papillary and Follicular): <https://www.thyroid.org/thyroid-cancer/>

Thyroid Cancer (Medullary): <https://www.thyroid.org/medullary-thyroid-cancer/>

Thyroid Nodules: <https://www.thyroid.org/thyroid-nodules/>

ABBREVIATIONS & DEFINITIONS

Cancer: a malignant growth or tumor caused by abnormal cells that divide without control.

Cancer surveillance: examinations and tests done at regular intervals to patients at risk for developing a certain type of cancer.

Thyroid cancer: Cancer arising from cells present in the thyroid gland, either the follicular thyroid cells (papillary thyroid carcinoma or follicular thyroid carcinoma) or the C-cells (medullary thyroid carcinoma).

Thyroid nodule: an abnormal growth of thyroid cells that forms a lump within the thyroid. While most thyroid nodules are non-cancerous (Benign), ~5% are cancerous.

Thyroid Ultrasound: a common imaging test used to evaluate the structure of the thyroid gland. Ultrasound

uses soundwaves to create a picture of the structure of the thyroid gland and accurately identify and characterize nodules within the thyroid. Ultrasound is also frequently used to guide the needle into a nodule during a thyroid nodule biopsy.

Radiotherapy: waves of radiation to treat cancers and tumors, as well as other conditions. As a general term, radiation means waves of energy, such as light or heat. The form of radiation used in cancer therapy is a high-energy type known as ionizing radiation

Ionizing radiation: radiation that can damage cells, causing cell death or mutation. It can originate from radioactive materials, x-ray tubes or specialized machines. It is invisible and not directly detectable by human senses

