

Thyroid nodules. Are they malignant or indolent tumors?

The most common thyroid cancer is papillary cancer, and more than 90% of pediatric thyroid cancers are papillary cancers with a 40-year tumor-specific survival rate of 97.5%. Stage I (early curable stage) cancer, which accounts for more than 85% of papillary cancer in adults, has a 20-year survival rate of 99.3%. Thus thyroid cancer is an exception to the cause of death of the patients. Overdiagnosis/overtreatment of cancer results from the relative consequences of the patient's lifespan ending before the patient's tumor death occurs due to cancer's slow growth rate. Well-differentiated cancers derived from follicular cells (papillary cancer and follicular cancer) are typical cancers with a very slow growth rate, and overdiagnosis/overtreatment occurs frequently. Therefore, it is essential to distinguish between slow-growing cancers that require treatment and very slow-growing cancers that do not require immediate treatment to decrease overdiagnosis/overtreatment. Epidemiologists conceptually propose very slow-growing cancer that does not cause tumor death, but it did not contain a method to identify them. In this presentation, the authors introduced borderline tumors, which show a slow growth rate and no invasive growth. This presentation further introduces the risk classification of thyroid tumors using the Ki67 labeling index (growth rate) to identify them.