

Abstract

Concordance between the TIRADS ultrasound criteria and BETHESDA cytology criteria and the incidence of histological surprises after Thyroidectomy.

Introduction:

Thyroid nodules are a common clinical problem. Epidemiologic studies have shown the prevalence of palpable thyroid nodules to be approximately 5% in women and 1 % in men. Thyroid Ultrasound (US) has considerably increased the number of cases identified. Several ultrasound features have been used to assign probabilities for risk stratification of thyroid nodules called as Thyroid Imaging Reporting and Data Systems (TIRADS).

The Bethesda System for Reporting Thyroid Cytopathology is a standardized reporting system for classifying thyroid FNAC results that comprises six diagnostic categories with unique risks of malignancy and recommendations for clinical management. The Bethesda System has been widely adopted. But it is still unclear if each category also predicts the type and extent of malignancy.

Although both US and FNAC are widely recommended procedures to study patients with thyroid nodules, the value of the existing concordance between the two methods has not been established. Consequently, the purpose of this study was to assess the existing concordance between the two diagnostic methods (TIRADS and Bethesda systems) and finally confirm the same by a histopathological examination.

Materials and methods:

This is a retrospective study of patients from 2015 to 2018, who presented to St. Johns Hospital, who underwent US imaging, FNAC and then subsequently surgery when required. The overall objective of the study was to determine the level of concordance between TIRADS category and BETHESDA, along with the incidence of histological surprises after hemi or total Thyroidectomy.

Results:

Of the 120 patients who underwent US thyroid, followed by US guided FNAC, and subsequently surgery the incidence TIRADS and Bethesda showed a remarkable concordance. But in about 10 % of cases there was a discordance.

Conclusion:

Although TIRADS criteria has a good concordance with the BETHESDA system, we did find histological surprises

