Short communication

Determination of diagnostic accuracy of ACR (TI-RADS) in thyroid nodules on ultrasonography, keeping Bethesda cytological score at FNAC as gold standard

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Abstract:

Purpose: TIRADS (Thyroid Imaging Reporting and Data System) is a risk stratification system for classifying thyroid lesions and was recently recognized by American College of Radiology (ACR) in 2017. TIRADS classification is now being used in daily routine categorization of sonographically visualized thyroid nodules. The aim of the study was to categorize all solid nodules of thyroid identified sonographically according to the TIRADS score and correlating the TIRADS score with BETHESDA histopathological category of the same nodule after FNAC. This correlation if validated could help avoid many unnecessary aspirations and thyroid related surgical procedures in cases where both sonographic and histopathological grades are low and to warrant early intervention in case of high scores with increasing risk of malignancy.

Methods and materials: Ultrasound of thyroid was carried out on GE logic with linear transducer of 7.5 ??? 12 MHz frequency. 210 patients referred for sonography of thyroid nodules were included in the study from 1st January 2017 to 31st July 2018. Fine needle aspiration was carried out under ultrasound guidance and cytology was done of all nodules categorized according to TIRADS. TIRADS and Bethesda scores were correlated.

Results: A total of 210 patients with 233 nodules of mean size 2.5 1.5 cm were included. The risk of malignancy of the TIRADS categories were as follows: TIRADS 2 0%, TIRADS 3 2.2%, TIRADS 4A 5.9%, TIRADS 4B 57.9%, TIRADS 5 100%

Conclusions: TIRADS (Thyroid Imaging Reporting and Data System)is a useful diagnostic classification in predicting malignancy and with FNAC using BETHESDA classification, unnecessary surgical procedures can be avoided.

Biography

Ghazal is currently working as a Consultant Radiologist at Pakistan Atomic Energy Commission General Hospital Islamabad for past 5 years. She has specialization in Radiology as well as in Nuclear Medicine and have 8 years of work experience in the field of Nuclear Medicine. Her interest is in interventional radiology and oncology. She participated in Research projects of IAEA as Chief scientific officer on Prostate cancer from 2008- 2011 and on Peadiatric lymphoma from 2012- 2013 and have presented her works at various international conferences and have been awarded best oral presenter in 2012, World Association of Radiopharmaceutical and Molecular Therapy.

Note: This work is partly presented at 3rd World Congress on Radiology and Oncology