ABSTRACT

BACKGROUND

Thyroid cancer is one of common endocrine cancers. Thyroid follicular neoplasms includes Follicular Adenoma, Follicular carcinoma and Follicular variant of Papillary Carcinoma. Diagnosis of a solitary encapsulated nodule with histomorphologic pattern is problematic for pathologists.

PSMA is tumour associated neovascucature marker in prostrate cancers and in some solid malignant tumours.

This study was conducted to evaluate the expression of PSMA in neovascucature of thyroid follicular neoplasms by immunohistochemistry to determine its usefulness for distinguishing between adenoma and carcinoma.

METHODS

The study was carried out in the Department of Pathology, Madurai Medical College, Madurai, during the period from May 2016 to August 2018 on 113 specimens of thyroid follicular neoplasms received in the department. After adequate fixation, representative bits were taken, processed and stained with Haematoxylin and Eosin.

The cases were classified based on WHO classification, 2017. Selected cases of thyroid follicular neoplasms were subjected to immunohistochemical evaluation with PSMA.
RESULTS

Thyroid follicular neoplasm showed an incidence of 7.4%. Thyroid follicular neoplasm showed a Female male ratio of 7:1. The intensity and extent of staining was significantly higher in follicular carcinoma and follicular variant of papillary carcinoma than follicular adenoma.

Fischer exact test was used to calculate and the P values obtained for intensity and extent of PSMA staining was less than 0.05.

CONCLUSION

Expression of PSMA in neovasculature can be used to distinguish benign and malignant follicular neoplasm by assessing the intensity and extent of staining of endothelial cells.

KEYWORDS: PSMA- Prostate Specific Membrane Antigen