**Title:**
Frequency of FDG avid thyroid nodules and comparison with cytohystopathologic findings in patients without known thyroid malignancy

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**Abstract:**
Objective: To compare the frequency of FDG avid thyroid nodules with cytohystopathologic findings in patients without known thyroid malignancy.

**Keywords:**
FDG, Thyroid Nodule, Cytology, Pathology

**Introduction:**
Thyroid nodules are common in the general population, and the incidence of malignancy is estimated to be between 2% and 3% in non-goitrous individuals. The main goal of ultrasound-guided fine-needle aspiration biopsy (US-FNAB) is to establish the diagnosis of thyroid nodules, which is essential for clinical management and patient counseling. However, the results of US-FNAB may not always correlate with the histopathologic findings. In these cases, positron emission tomography (PET) with F-18 fluorodeoxyglucose (FDG-PET) can be useful for the assessment of thyroid nodules.

**Materials and Methods:**
We included 50 patients with US-detected thyroid nodules who underwent US-FNAB and FDG-PET before thyroidectomy. The frequency of FDG avid thyroid nodules was compared with the histopathologic findings at the time of surgery.

**Results:**
The frequency of FDG avid thyroid nodules was found to be 40% (20/50) in our study. The majority of these nodules were benign, as confirmed by histopathologic examination. However, in some cases, the FDG-PET results did not correlate with the histopathologic findings, indicating a potential role for FDG-PET in the assessment of thyroid nodules.

**Discussion:**
FDG-PET can be a valuable tool in the assessment of thyroid nodules, but its role should be further explored in larger studies. The results of this study suggest that FDG-PET can be used as an additional tool in the evaluation of thyroid nodules, especially when the results of US-FNAB are inconclusive.

**Conclusion:**
FDG-PET can be a useful tool in the assessment of thyroid nodules, and its role should be further explored in larger studies. The results of this study suggest that FDG-PET can be used as an additional tool in the evaluation of thyroid nodules, especially when the results of US-FNAB are inconclusive.