The Role of PET/CT in Differentiating malignant/benign Solitary Lung Nodule

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Revised Date: Jan 27, 18

Keywords: SPN, SUVmax, HU , PET/CT

I. Abstract Body (up to 250 words)

Introduction:
Single nodule lung cancer, AKA Solitary pulmonary nodules (SPN). may be an early sign of lung cancer. The aim of this paper is to discuss the role of PET/CT in evaluation of differentiating malignant/benign SPN due to the difficulties of radiological imaging technique to differentiate between malignant and benign SPN. Moreover, by taking in counts published articles regarding evaluation SPN, the SUVmax and Hounsfield (HU) of PET/CT scans of benign, malignant and metastatic were also compared to assess the role PET/CT in discriminating between malignant/benign SPN.

Materials and methods:
Based on many studies done on patients with pre-diagnosis of pulmonary nodule or non-pulmonary malignancy, diameter in cm, location either peripheral or central, borders , calcification percentage and HU and SUVmax values of all nodules were recorded.

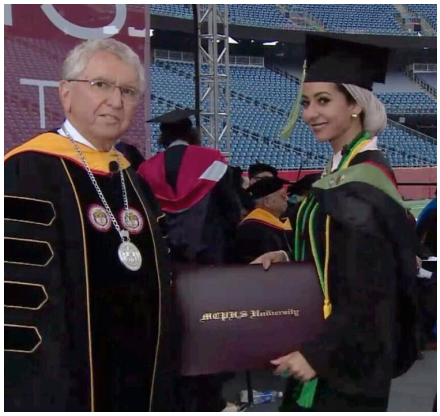
Results:
Statically talking, the mean SUVmax was dramatically higher in patients with nodules greater or equal to 1 cm, irregular boarder shape and centrally located nodule.

Conclusion:
PET/CT plays a crucial role in differentiating malignant/benign solitary lung cancer with diameter equal or greater than 1 cm. Finally, PET/CT is an important tool in diagnosing SPN.

II. Reference:

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Category: Poster presentation
Passport Number: P332348