

Submillimeter Correlation Between Dedicated Breast PET Image and Pathologic Anatomy Dimensions

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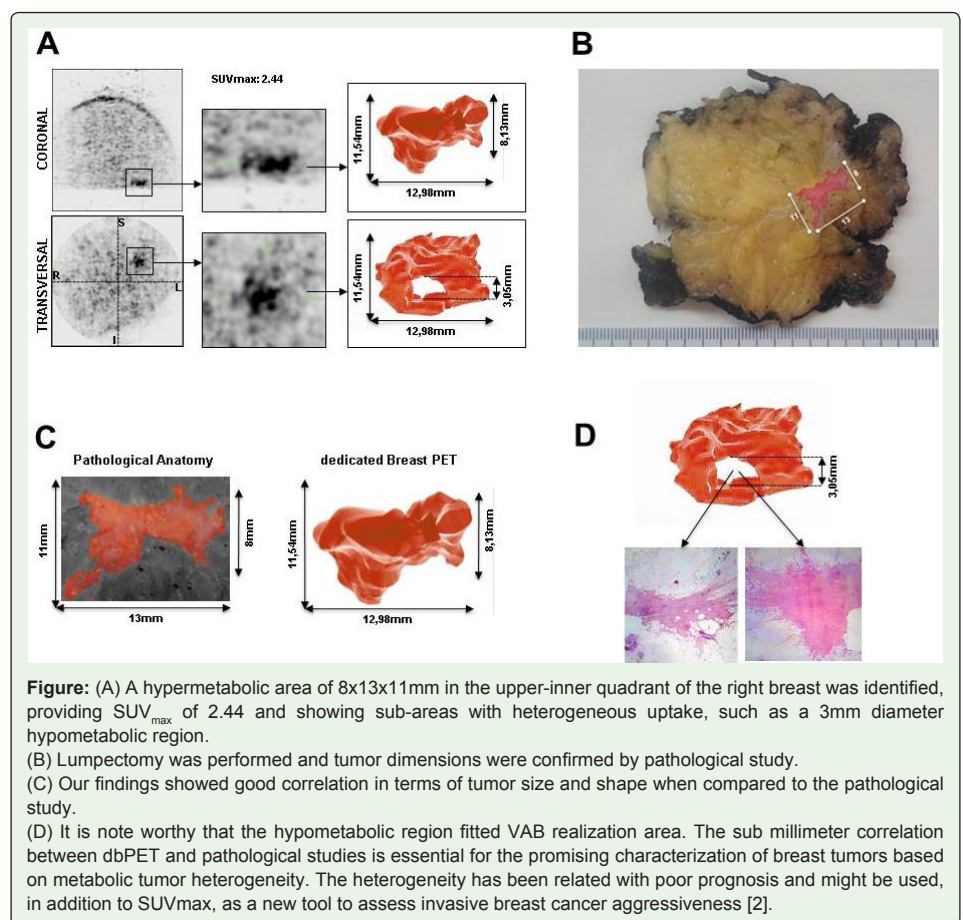
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Clinical Image

Breast PET imaging can be carried out by using dedicated breast PET (dbPET) scanners. These novel scanners consist of small ring detectors around of breast with the patient in prone position, thus facilitating breast elongation and providing higher sensitivity and better spatial resolution, which leads to a reduction of injected dose. In this work, we are aimed at studying the correlation between dbPET images and pathological studies. Our findings showed submillimeter correlation in terms of tumor size and shape when compared to the pathological study (Figure).

A 65-year-old woman was referred to our Department with a tumor in the right breast and personal history of morbidly obesity (BMI>50), uncontrolled diabetes and hypertension. Mammography showed a 15x14mm spiculated lesion, difficult to localize due to breast size, but confirmed by ultrasonography. VAB (ultrasound-guided-vacuum-assisted biopsy) yielded up a T1c



Invasive Lobular Carcinoma (ILC). MRI was not performed because patient size. Dedicated breast PET (dbPET) 60min after injection of 130MBq FDG was performed. The dbPET scanners consist of small ring detectors around of breast with the patient in prone position, without breast compression, facilitating breast elongation and confort [1]. The advantage of these dedicated scanners is its higher sensitivity and better spatial resolution, which leads to a reduction of injected dose and/or scan time, while keeping reasonable spatial resolution.

References

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