

# C18

## The Addition of Octreotide Functional Imaging to CT or MRI Cross-Sectional Imaging for the Detection of Neuroendocrine Tumors (NETs) - Added Value or an Anachronism?

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**Purpose:** Somatostatin scintigraphy (OctreoScan, SRS, octreotide scan) detects somatostatin receptors and images disease in patients with NETs. We evaluated the benefit of an octreotide scan when used in conjunction with CT or MRI, to determine if it detected additional NET disease.

**Methods:** Computerized medical records were used to identify all NET patients who underwent an octreotide scan in addition to either a CT or MRI within a 30-day time period, at MSKCC from 1/1/2003 through 12/1/2009. Reports of the scans and clinical history were reviewed.

**Results:** 121 evaluable patients were identified, of whom 107 had metastatic disease. Twenty-one patients were classified as high-grade, 13 intermediate-grade, 78 low-grade and 9 had unspecified grade classification. Twenty-two patients had a negative octreotide scan in the setting of metastatic disease on CT or MRI. Of those, 14 were high-grade, 3 intermediate-grade, 3 low-grade and 2 unspecified grade. An additional 9 low-grade patients had findings of primary NET on CT or MRI that were not seen on octreotide scan. In six patients, bone lesions were revealed on octreotide scan that were not seen on CT or MRI imaging; all of these findings were in the setting of metastatic disease.

**Conclusion:** Modern CT and MRI were able to identify soft tissue lesions with greater sensitivity than octreotide scan. 6% of patients had octreotide scan avid bone metastases not seen on CT or MR. These data suggest that, contrary to current practice, octreotide scanning is not a useful adjunct for defining extent of soft tissue disease in NET tumors, and should not be used routinely for this purpose.

