

Adrenal Nuclear Imaging (AB 16.4)

- Nuclear medicine studies provide functional imaging that helps to further characterize adrenal masses not adequately detailed on CT or MRI.
- A meta-analysis found I-123 MIBG sensitivity of 96% in patients with non-metastatic pheochromocytoma or paraganglioma and 79% in patients with metastatic pheochromocytoma or paraganglioma.
- Studies have shown excellent lesion-based sensitivity in detecting pheochromocytoma and paraganglioma, often more than 92%, when using 68Ga-DOTATATE (somatostatin analog-SSA) PET/CT.
- A meta-analysis comparing the sensitivity of ¹⁸F-FDG and 68Ga-DOTA-SSA found that the sensitivity of 68Ga-DOTA-SSA (95%) was superior to that of ¹⁸F-FDG (85%) in detecting pheochromocytoma and paraganglioma.
- Nuclear medicine studies are very useful in head and neck paragangliomas (HNPG) that prove to be difficult to detect on standard CT or MRI. The sensitivity of 68Ga-DOTATATE was 100% for HNPG, with identification of additional lesions not visualized with other modalities.
- MIBG or SSA nuclear scans are also very helpful in identifying neuroblastoma, ganglioneuroblastoma, or ganglioneuromas, often associated with Von Hippel-Lindau Syndrome.

References:

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