Octreotide scan

An octreotide scan or octreoscan is a type of scintigraphy used to find carcinoid, pancreatic neuroendocrine tumors, and to localize sarcoidosis. It is also called somatostatin receptor scintigraphy (SRS). Octreotide, a drug similar to somatostatin, is radiolabeled with indium-111,[1] and is injected into a vein and travels through the bloodstream. The radioactive octreotide attaches to tumor cells that have receptors for somatostatin. A gamma camera detects the radioactive octreotide and makes pictures showing where the tumor cells are in the body.

Octreotide scanning is reported to have a sensitivity between 75% and 100% for detecting pancreatic neuroendocrine tumors.

Indications

For acromegaly: SPECT imaging 4 and 24 hours after injection with 6.5 mCi of indium-111 OctreoScan, a somatostatin receptor imaging agent.

An octreotide scan may be used to locate suspected primary neuroendocrine tumours (NET) or for follow-up or staging after treatment.

Procedure

The 111In-pentetreotide radiopharmaceutical is prepared from a kit in a radiopharmacy. Pentetreotide is a DTPA conjugate of octreotide.

Approximately 200 megabecquerels of Indium-111 is injected intravenously. Imaging takes place 24 hours after injection, but may also be carried out at 4 and 48 hours.