

# 68Ga-DOTATATE PET

## 68Ga-DOTATATE PET for meningioma diagnosis

see [68Ga-DOTATATE PET for meningioma diagnosis](#).

Scanning for somatostatin receptors using [68Ga-DOTATATE PET](#) with co-registration with [computed tomography](#) or [magnetic resonance imaging](#) is now in widespread use for the identification of [neuroendocrine tumors](#), [pheochromocytomas](#), and [paragangliomas](#) and their metastases <sup>1)</sup>.

---

4: Terrones-Lozano A, Hernández-Hernández A, Nathal Vera E, Guinto-Nishimura GY, Balderrama-Bañares JL, Ramírez-Rentería C, de la Serna-Soto J, Reza-Albaran AA, Portocarrero-Ortiz L. Current Approach of Functioning Head and Neck Paragangliomas: Case Report of a Young Patient with Multiple Asynchronous Tumors. *Case Rep Endocrinol.* 2020 Jan 30;2020:6827109. doi: 10.1155/2020/6827109. PMID: 32082649; PMCID: PMC7019207.

5: Unterrainer M, Ruf V, Ilhan H, Vettermann F, Holzgreve A, Cyran CC, Tonn JC, Bartenstein P, Albert NL. Teaching NeuroImages: Advanced imaging of neurosarcoidosis with <sup>68</sup>Ga-DOTATATE PET/CT. *Neurology.* 2019 May 21;92(21):e2512-e2513. doi: 10.1212/WNL.0000000000007544. PMID: 31110154.

6: Pang HH, Chen PY, Wei KC, Huang CW, Shiue YL, Huang CY, Yang HW. Convection- Enhanced Delivery of a Virus-Like Nanotherapeutic Agent with Dual-Modal Imaging for Besiegement and Eradication of Brain Tumors. *Theranostics.* 2019 Feb 28;9(6):1752-1763. doi: 10.7150/thno.30977. PMID: 31037136; PMCID: PMC6485197.

8: Kroiss AS, Uprimny C, Shulkin BL, Gruber L, Frech A, Jazbec T, Girod PP, Url C, Thomé C, Riechelmann H, Sprinzl GM, Fraedrich G, Virgolini IJ. <sup>68</sup>Ga-DOTATOC PET/CT in the localization of metastatic extra-adrenal paraganglioma and pheochromocytoma compared with <sup>18</sup>F-DOPA PET/CT. *Rev Esp Med Nucl Imagen Mol.* 2019 Mar-Apr;38(2):94-99. English, Spanish. doi: 10.1016/j.remn.2018.09.004. Epub 2019 Jan 7. PMID: 30630744.

9: Wang H, Hou B, Lu L, Feng M, Zang J, Yao S, Feng F, Wang R, Li F, Zhu Z. PET/MRI in the Diagnosis of Hormone-Producing Pituitary Microadenoma: A Prospective Pilot Study. *J Nucl Med.* 2018 Mar;59(3):523-528. doi: 10.2967/jnumed.117.191916. Epub 2017 Aug 3. PMID: 28775202.

11: Tarkin JM, Joshi FR, Evans NR, Chowdhury MM, Figg NL, Shah AV, Starks LT, Martin-Garrido A, Manavaki R, Yu E, Kuc RE, Grassi L, Kreuzhuber R, Kostadima MA, Frontini M, Kirkpatrick PJ, Coughlin PA, Gopalan D, Fryer TD, Buscombe JR, Groves AM, Ouwehand WH, Bennett MR, Warburton EA, Davenport AP, Rudd JH. Detection of Atherosclerotic Inflammation by <sup>68</sup>Ga-DOTATATE PET Compared to [<sup>18</sup>F]FDG PET Imaging. *J Am Coll Cardiol.* 2017 Apr 11;69(14):1774-1791. doi: 10.1016/j.jacc.2017.01.060. PMID: 28385306; PMCID: PMC5381358.

12: Sizdahkhani S, Feldman MJ, Piazza MG, Ksendzovsky A, Edwards NA, Ray- Chaudhury A, Maric D, Merrill MJ, Pacak K, Zhuang Z, Chittiboina P. Somatostatin receptor expression on von Hippel-Lindau-associated hemangioblastomas offers novel therapeutic target. *Sci Rep.* 2017 Jan 17;7:40822. doi: 10.1038/srep40822. PMID: 28094316; PMCID: PMC5240113.

- 14: Lapa C, Linsenmann T, Lückerath K, Samnick S, Herrmann K, Stoffer C, Ernestus RI, Buck AK, Löhr M, Monoranu CM. Tumor-associated macrophages in glioblastoma multiforme-a suitable target for somatostatin receptor-based imaging and therapy? PLoS One. 2015 Mar 25;10(3):e0122269. doi: 10.1371/journal.pone.0122269. PMID: 25807228; PMCID: PMC4373835.
- 16: d'Amico A, Stąpór-Fudzińska M, Tarnawski R. CyberKnife radiosurgery planning of a secreting pituitary neuroendocrine tumor performed with <sup>68</sup>Ga DOTATATE PET and MRI. Clin Nucl Med. 2014 Dec;39(12):1043-4. doi: 10.1097/RLU.0000000000000535. PMID: 25140540.
- 17: Xiao J, Zhu Z, Zhong D, Ma W, Wang R. Improvement in diagnosis of metastatic pituitary carcinoma by <sup>68</sup>Ga DOTATATE PET/CT. Clin Nucl Med. 2015 Feb;40(2):e129-31. doi: 10.1097/RLU.0000000000000462. PMID: 24873798.
- 18: Zhao X, Xiao J, Xing B, Wang R, Zhu Z, Li F. Comparison of (<sup>68</sup>)Ga DOTATATE to <sup>18</sup>F-FDG uptake is useful in the differentiation of residual or recurrent pituitary neuroendocrine tumor from the remaining pituitary tissue after transsphenoidal adenomectomy. Clin Nucl Med. 2014 Jul;39(7):605-8. doi: 10.1097/RLU.0000000000000457. PMID: 24873787.

20: Parghane RV, Agrawal K, Mittal BR, Shukla J, Bhattacharya A, Mukherjee KK. <sup>68</sup>Ga DOTATATE PET/CT in a rare coexistence of pituitary macroadenoma and multiple paragangliomas. Clin Nucl Med. 2014 Jan;39(1):91-3. doi: 10.1097/RLU.0b013e3182a77b78. PMID: 24152628.

1)

Moffat D, Richards P, Kurzawinski TR, Khan S, Khoo B, Grossman A. Misleading <sup>68</sup> GALLIUM-dotatate PET scan in a patient with a history of a phaeochromocytoma: Unsuspected uptake in papillary thyroid carcinoma metastases. J Neuroendocrinol. 2021 Mar 23:e12964. doi: 10.1111/jne.12964. Epub ahead of print. PMID: 33754388.

From:  
<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**



Permanent link:  
[https://neurosurgerywiki.com/wiki/doku.php?id=68ga-dotatate\\_pet](https://neurosurgerywiki.com/wiki/doku.php?id=68ga-dotatate_pet)

Last update: **2025/05/13 02:15**