

### <sup>68</sup>Ga-DOTATATE PET/CT in TIO

In an article e-published on August 17 ahead of print in the *Journal of Clinical Endocrinology and Metabolism*, El-Maouche et al. from the University of Miami Miller School of Medicine (FL), the National Institutes of Health (Bethesda, MD), and the University Hospitals of Geneva (Switzerland) reported on <sup>68</sup>Ga-DOTATATE PET/CT for tumor localization in tumor-induced osteomalacia (TIO). The study included 11 patients with TIO who underwent <sup>68</sup>Ga-DOTATATE PET/CT in addition to <sup>111</sup>In-pentetreotide SPECT/CT and <sup>18</sup>F-FDG PET/CT imaging. Tumors were successfully localized in 6 (54.5%) of the patients, with <sup>68</sup>Ga-DOTATATE positive in all 6 cases. <sup>111</sup>In-pentetreotide SPECT/CT and <sup>18</sup>F-FDG PET each identified tumors in 4 of the patients. The authors concluded that “<sup>68</sup>Ga-DOTATATE PET/CT demonstrated the greatest sensitivity and specificity, suggesting that it may be the best single study for localization of phosphaturic mesenchymal tumors in TIO.”

*Journal of Clinical Endocrinology and Metabolism*

### Negative Interim PET in HL

Mesguich et al. from the University Hospital of Bordeaux (Pessac, France) and the Institut Bergonié Cancer Centre (Bordeaux, France) reported on August 19 ahead of print in the *British Journal of Haematology* on a study asking whether end-of-treatment <sup>18</sup>F-FDG PET/CT can be omitted in patients with Hodgkin lymphoma (HL) when interim PET results are negative. The retrospective study included imaging and other data from 76 patients who underwent chemotherapy for HL, with a median follow-up of 58.9 mo. Sensitivity, specificity, positive and negative predictive values, and accuracy of interim PET were 46.7%, 85.2%, 43.8%, 86.7%, and 77.6%, respectively. Corresponding end-of-treatment PET figures were 80%, 93.4%, 75%, 95%, and 90.8%. No

changes in treatment were made on the basis of interim PET results. Eight patients whose interim PET results were negative experienced treatment failure, and 6 of these were identified as nonresponders at end-of-treatment imaging. Five-year progression-free survival was 87% for patients with negative interim PET and 56% for those with positive interim PET; these survival rates were 96% with negative and 23% with positive end-of-treatment PET. The authors concluded that because interim PET predicted only half of failures in this setting, “a negative interim PET study cannot obviate the need for end-PET examination.”

*British Journal of Haematology*

### EORTC Criteria and PERCIST in Solid Tumors

In an article e-published on August 10 ahead of print in *Oncotarget*, Jung, from Hallym University College of Medicine (Seoul, Republic of Korea) reported on a pooled analysis and comparison of agreement in assessment of tumor response between the European Organisation for Research and Treatment of Cancer (EORTC) criteria and the PET Response Criteria in Solid Tumors (PERCIST). The analysis included a survey of the literature on studies using the 2 sets of criteria and published between 2009 and January 2016. Six articles were identified comparing the criteria, including a total of 348 patients (190 with breast cancer, 81 with colorectal cancer, 45 with lung cancer, 14 with basal cell carcinoma, 12 with stomach cancer, and 6 with head and neck cancer). Only 12 (3.4%) patients showed disagreement between the 2 criteria in assessment of tumor response, and estimated overall response rates were not significantly different between the 2 criteria (72.7% by EORTC criteria and 73.6% by PERCIST).

*Oncotarget*

The Newslines editor recommends additional articles published in the peer-reviewed literature in August:

- Elkhatib AH, Soldatova L, Carrau RL, et al. Role of <sup>18</sup>F-FDG PET/CT differentiating olfactory neuroblastoma

from sinonasal undifferentiated carcinoma. *Laryngoscope*. 2016 Aug 2. E-published ahead of print.

- Tulik P, Kowalska M, Golnik N, Budzynka A, Dziuk M. Measurements of the ionizing radiation level at a nuclear medicine facility performing PET/CT examinations. *Radiat Prot Dosimetry*. 2016 Aug 19. E-published ahead of print.
- Buckle T, KleinJan GH, Engelen T, et al. Diffusion-weighted-preparation (D-prep) MRI as a future extension of SPECT/CT-based surgical planning for sentinel node procedures in the head and neck area. *Oral Oncol*. 2016;60:48–54.
- Dos Anjos RF, Dos Anjos DA, Vieira DL, et al. Effectiveness of FDG PET/CT for evaluating early response to induction chemotherapy in head and neck squamous cell carcinoma: a systematic review. *Medicine (Baltimore)*. 2016;95:e4450.
- Conrad F, Winkens T, Kaatz M, Goetze S, Freesmeyer M. Retrospective chart analysis of incidental findings detected by <sup>18</sup>F-fluorodeoxyglucose PET/CT in patients with cutaneous malignant melanoma. *J Dtsch Dermatol Ges*. 2016;14:807–816.
- Chen JY, Cypess AM, Laughlin MR, et al. Brown Adipose Reporting Criteria in Imaging Studies (BARCIST 1.0): recommendations for standardized FDG-PET/CT experiments in humans. *Cell Metab*. 2016;24:210–222.
- Burnham SC, Rowe CC, Baker D, et al. Predicting Alzheimer disease from a blood-based biomarker profile: a 54-month follow-up. *Neurology*. 2016 Aug 17. E-published ahead of print.
- Takuwa H, Ikoma Y, Yoshida E, et al. Development of a simultaneous optical/PET imaging system for awake mice. *Phys Med Biol*. 2016;61:6430–6440.
- Kishi T, Matsuo Y, Nakamura A, et al. Comparative evaluation of respiratory-gated and ungated FDG-PET for target volume definition in radiotherapy treatment planning for pancreatic

cancer. *Radiother Oncol.* 2016 Aug 1. E-published ahead of print.

## Reviews

Review articles provide an important way to stay up to date on the latest topics and approaches by providing valuable summaries of pertinent literature. The Newline editor recommends several reviews accessioned into the PubMed database in August. Mertan et al. from the National Cancer Institute (Bethesda, MD) provided an overview

of “PET imaging of recurrent and metastatic prostate cancer with novel tracers,” e-published on August 16 in *Future Oncology*. In an article also e-published on August 16 ahead of print in the *European Journal of Haematology*, Adams and Kwee from the University Medical Center Utrecht (The Netherlands) described “Controversies on the prognostic value of interim FDG-PET in advanced-stage Hodgkin lymphoma.” Rizzieri, from Duke Cancer Institute (Durham, NC)

asked “Zevalin (ibritumomab tiuxetan): after a decade of treatment experience, what have we learned?” in the September issue of *Critical Reviews in Oncology/Hematology* (2016;105:5–17). In an article in the August issue of *Cardiovascular Diagnosis and Therapy* (2016;6:354–367), Scherer and Psaltis from the University of Adelaide (Australia) reported on “Future imaging of atherosclerosis: molecular imaging of coronary atherosclerosis with  $^{18}\text{F}$  positron emission tomography.”