

- Ho D and Feng D 1999 Rapid algorithms for the construction of cerebral blood flow and oxygen utilization images with oxygen-15 and dynamic positron emission tomography *Comput. Methods Prog. Biomed.* **58** 99–117
- Holden J E, Eriksson L, Roland P E, Stone-Elander S, Widen L and Kesselberg M 1988 Direct comparison of single-scan autoradiographic with multiple-scan least-squares fitting approaches to PET CMRO<sub>2</sub> estimation *J. Cereb. Blood Flow Metab.* **8** 671–80
- Huang S C, Feng D G and Phelps M E 1986 Model dependency and estimation reliability in measurement of cerebral oxygen utilization rate with oxygen-15 and dynamic positron emission tomography *J. Cereb. Blood Flow Metab.* **6** 105–19
- Iida H, Higano S, Tomura N, Shishido F, Kanno I, Miura S, Murakami M, Takahashi K, Sasaki H and Uemura K 1988 Evaluation of regional differences of tracer appearance time in cerebral tissues using [<sup>15</sup>O] water and dynamic positron emission tomography *J. Cereb. Blood Flow Metab.* **8** 285–8
- Iida H, Jones T and Miura S 1993 Modeling approach to eliminate the need to separate arterial plasma in oxygen-15 inhalation positron emission tomography *J. Nucl. Med.* **34** 1333–40
- Iida H, Kanno I, Miura S, Murakami M, Takahashi K and Uemura K 1986 Error analysis of a quantitative cerebral blood flow measurement using H<sub>2</sub>(15)O autoradiography and positron emission tomography, with respect to the dispersion of the input function *J. Cereb. Blood Flow Metab.* **6** 536–45
- Iida H, Miyake Y, Hayashi T, Kudomi N, Ogawa M, Teramoto N, Kim K M, Oka H and Hayashida K 2002 A new strategy for rapid clinical imaging of rCMRO<sub>2</sub>, rCBF and rOEF using PET *J. Nucl. Med.* **43** 62P
- Iida H *et al* 2000 Quantitation of regional cerebral blood flow corrected for partial volume effect using O-15 water and PET: I. Theory, error analysis, and stereologic comparison *J. Cereb. Blood Flow Metab.* **20** 1237–51
- Kanno I *et al* 1987 A system for cerebral blood flow measurement using an H<sub>2</sub><sup>15</sup>O autoradiographic method and positron emission tomography *J. Cereb. Blood Flow Metab.* **7** 143–53
- Kudomi N, Choi C, Watabe H, Kim K M, Shidahara M, Ogawa M, Teramoto N, Sakamoto E and Iida H 2003 Development of a GSO detector assembly for a continuous blood sampling system *IEEE Trans. Nucl. Sci.* **50** 70–3
- Kudomi N, Hayashi T, Teramoto N, Watabe H, Kawachi N, Ohta Y, Kim K M and Iida H 2005 Rapid quantitative measurement of CMRO<sub>2</sub> and CBF by dual administration of <sup>15</sup>O-labelled oxygen and water during a single PET scan—a validation study and error analysis in anesthetized monkeys *J. Cereb. Blood Flow Metab.* **25** 1209–24
- Lammertsma A A, Cunningham V J, Deiber M P, Heather J D, Bloomfield P M, Nutt J, Frackowiak R S and Jones T 1990 Combination of dynamic and integral methods for generating reproducible functional CBF images *J. Cereb. Blood Flow Metab.* **10** 675–86
- Lammertsma A A, Heather J D, Jones T, Frackowiak R S and Lenzi G L 1982 A statistical study of the steady state technique for measuring regional cerebral blood flow and oxygen utilisation using <sup>15</sup>O *J. Comput. Assist. Tomogr.* **6** 566–73
- Lammertsma A A and Jones T 1983 Correction for the presence of intravascular oxygen-15 in the steady-state technique for measuring regional oxygen extraction ratio in the brain: 1. Description of the method *J. Cereb. Blood Flow Metab.* **3** 416–24
- Meyer E, Tyler J L, Thompson C J, Redies C, Diksic M and Hakim A M 1987 Estimation of cerebral oxygen utilization rate by single-bolus <sup>15</sup>O<sub>2</sub> inhalation and dynamic positron emission tomography *J. Cereb. Blood Flow Metab.* **7** 403–14
- Mintun M A, Raichle M E, Martin W R and Herscovitch P 1984 Brain oxygen utilization measured with O-15 radiotracers and positron emission tomography *J. Nucl. Med.* **25** 177–87
- Mintun M A, Vlassenko A G, Shulman G L and Snyder A Z 2002 Time-related increase of oxygen utilization in continuously activated human visual cortex *Neuroimage* **16** 531–7
- Ohta S, Meyer E, Thompson C J and Gjedde A 1992 Oxygen consumption of the living human brain measured after a single inhalation of positron emitting oxygen *J. Cereb. Blood Flow Metab.* **12** 175–92
- Okazawa H, Yamauchi H, Sugimoto K, Takahashi M, Toyoda H, Kishibe Y and Shio H 2001a Quantitative comparison of the bolus and steady-state methods for measurement of cerebral perfusion and oxygen metabolism: positron emission tomography study using <sup>15</sup>O-gas and water *J. Cereb. Blood Flow Metab.* **21** 793–803
- Okazawa H, Yamauchi H, Sugimoto K, Toyoda H, Kishibe Y and Takahashi M 2001b Effects of acetazolamide on cerebral blood flow, blood volume, and oxygen metabolism: a positron emission tomography study with healthy volunteers *J. Cereb. Blood Flow Metab.* **21** 1472–9
- Raichle M E, Martin W R, Herscovitch P, Mintun M A and Markham J 1983 Brain blood flow measured with intravenous H<sub>2</sub><sup>15</sup>O: II. Implementation and validation *J. Nucl. Med.* **24** 790–8
- Sadato N, Yonekura Y, Senda M, Iwasaki Y, Matoba N, Tamaki N, Sasayama S, Magata Y and Konishi J 1993 PET and the autoradiographic method with continuous inhalation of oxygen-15-gas: theoretical analysis and comparison with conventional steady-state methods *J. Nucl. Med.* **34** 1672–80

- Shidahara M *et al* 2002 Evaluation of a commercial PET tomograph-based system for the quantitative assessment of rCBF, rOEF and rCMRO<sub>2</sub> by using sequential administration of <sup>15</sup>O-labelled compounds *Ann. Nucl. Med.* **16** 317–27
- Subramanyam R, Alpert N M, Hoop B Jr, Brownell G L and Taveras J M 1978 A model for regional cerebral oxygen distribution during continuous inhalation of <sup>15</sup>O<sub>2</sub>, C<sup>15</sup>O, and C<sup>15</sup>15O<sub>2</sub> *J. Nucl. Med.* **19** 48–53
- Vafee M S and Gjedde A 2000 Model of blood-brain transfer of oxygen explains nonlinear flow-metabolism coupling during stimulation of visual cortex *J. Cereb. Blood Flow Metab.* **20** 747–54
- Votaw J R and Shulman S D 1998 Performance evaluation of the Pico-count flow-through detector for use in cerebral blood flow PET studies *J. Nucl. Med.* **39** 509–15