

The Clinical Usefulness of ^{18}F -Fluorodeoxyglucose Positron Emission Tomography (PET) to Predict Oncologic Outcomes and PET-Based Radiotherapeutic Considerations in Locally Advanced Nasopharyngeal Carcinoma

Hong In Yoon, MD¹, Kyung Hwan Kim, MD¹, Jeongshim Lee, MD¹, Yun Ho Roh, MS², Mijin Yun, MD, PhD³,
Byoung Chul Cho, MD, PhD⁴, Chang Geol Lee, MD, PhD¹, Ki Chang Keum, MD, PhD¹

¹Department of Radiation Oncology, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul,

²Biostatistics Collaboration Unit, Yonsei University College of Medicine, Seoul,

³Department of Nuclear Medicine, Yonsei University College of Medicine, Seoul,

⁴Department of Internal Medicine, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Korea

Supplementary Data

Table of Contents

Supplementary Table 1	2
Supplementary Table 2	2

Supplementary Table 1. Univariate analysis of ^{18}F -FDG-PET parameters for progression-free survival using Cox proportional hazards model

Variable	C-index	SE	HR (95% CI)	p-value
SUVmax for whole tumor	0.616	0.056	1.05 (1.006-1.1)	0.027
SUVmax for primary tumor	0.603	0.056	1.05 (0.999-1.09)	0.057
SUVmax for nodal metastasis	0.563	0.057	1.036 (0.978-1.098)	0.226
MTV for whole tumor	0.645	0.056	1.008 (1.002-1.015)	0.011
MTV for primary tumor	0.651	0.056	1.024 (1.011-1.037)	< 0.001
MTV for nodal metastasis	0.503	0.057	1.002 (0.993-1.011)	0.7
TLG for whole tumor	0.666	0.056	1.002 (1.001-1.003)	< 0.001
TLG for primary tumor	0.666	0.056	1.002 (1.001-1.004)	< 0.001
TLG for nodal metastasis	0.522	0.057	1.001 (1-1.002)	0.172

^{18}F -FDG-PET, ^{18}F -fludeoxyglucose-positron emission tomography; C-index, concordance index; SE, standard error; HR, hazard ratio; CI, confidence interval; SUVmax, maximum standardized uptake value; MTV, metabolic tumor volume; TLG, total lesion glycolysis.

Supplementary Table 2. Cut-points of total lesion glycolysis for whole and primary tumor volume

	Cut-point	iAUC	Bootstrapping method	
			Mean	95% CI
TLG for whole tumor	322.7	0.669	0.674	0.586-0.78
TLG for primary tumor	123.1	0.658	0.674	0.576-0.81

iAUC, incremental area under curve; CI, confidence interval; TLG, total lesion glycolysis.