

Table I. *Characteristics of 30 patients.*

Characteristics		<i>N</i>
Age(y), mean(range)		67.1 (46-83)
Gender	Male	27
	Female	3
Location	Upper	8
	Middle	10
	Lower	12
Tumor type	1	3
	2	4
	3	22
	4	1
Histology	SCC	30
	Others	0
Tumor depth	cT2	4
	3	21
	4a	2
	4b	3

Lymph node status	cN0	3
	1	11
	2	13
	3	3
Stage	cS IIA	3
	IIB	2
	IIA	9
	IIIB	10
	IIIC	6
Neoadjuvant chemotherapy	DCF	25
	DNF	3
	CF	2

Table II. *Pathologic response: RECIST versus PERCIST.*

Pathologic response		
Responder	Non-responder	Total
(Grade1b-3)	(Grade0 and 1a)	

RECIST

Responder (CR ,PR)	5	9	14
Non-responder (SD, PD)	6	10	16
Total	11	19	30

PERCIST

Responder (CMR, PMR)	10	10	20
Non-responder (SMD, PMD)	1	9	10
Total	11	19	30

Concordance rate: RECIST=50%, PERCIST=63%

RECIST, response evaluation criteria in solid tumors; PERCIST, PET response criteria in solid tumors; C(M)R, complete (metabolic) response; P(M)R, partial (metabolic) response; S(M)D, stable (metabolic) disease; P(M)D, progressive (metabolic) disease.

Table III. *Correlations between the pathological response and PET/CT findings for the primary tumor.*

	Responder (Grade1b-3) (n=11)	Non-responder (Grade0 and 1a) (n=19)	<i>p</i> - Value
SUVmax			
pre-NAC	15.58(3.52-21.53)	14.72 (6.73-21.99)	0.366
post-NAC	4.32 (1.59-9.27)	8.78(2.15-21.35)	0.007
%decrease	68.8% (40.1-89.5%)	35.4% (-57.0-87.1%)	0.017
MTV			
pre-NAC	39.53 (1.41-102.01)	29.79(4.58-60.62)	0.401
post-NAC	3.35 (0.00-15.84)	14.48 (0.00-76.11)	0.014
%decrease	89.7% (56.8-100%)	54.6% (-26.1-100%)	0.003

MTV, Metabolic tumor volume.

Table IV. Correlations between the pathological response and PET/CT findings for the lymph nodes.

	Responder (Grade1b-3) (N=10)	Non-responder (Grade0 and 1a) (n=14)	<i>p</i> - Value
SUVmax			
pre-NAC	9.52(3.15-20.81)	8.41 (3.17-17.88)	0.598
post-NAC	2.04(0.98-3.32)	5.18 (1.50-14.51)	0.002
%decrease	73.4% (51.4-93.4%)	33.7% (-72.9-79.9%)	0.002
MTV			
pre-NAC	20.59(0.92-126.9)	18.26(1.34-136.02)	0.639
post-NAC	0.37 (0.00-1.83)	10.40(0.00-106.10)	0.002
%decrease	98.4% (88.4-100%)	53.4% (-55.7-100%)	0.001

MTV, Metabolic tumor volume.

Table V *Diagnostic predictive values of PET/CT in the prediction of pathological responders after NAC, by ROC analysis.*

			AUC	Sensitivity(%)	Specificity(%)
Primary	SUV _{max}	post-NAC	0.799	54.5	78.9
		%decrease	0.766	100	47.4
	MTV	post-NAC	0.773	94.7	54.5
		%decrease	0.825	81.8	68.4
Lymph node	SUV _{max}	post-NAC	0.879	71.4	100
		%decrease	0.825	81.8	68.4
	MTV	post-NAC	0.879	85.7	90.0
		%decrease	0.900	100	78.6

AUC, Area under the receiver-operating-characteristic curve.