

第2回
Hematological Pet Club総会

FDG-PETからみたMDSの病態

枚方公済病院
林 邦雄

骨髓浸潤の頻度

Lymphoma	BM involvement
low grade NHL	50 ~ 80%
high grade NHL	25-40%
HD	5-14%
	Mc Konna RW,1992

unilateral marrow disease

43% in HD

discrepancy of bilateral iliac crest biopsy

20-30% in high grade NHL

J.Clin.Pathol.,1990

Hematol. Pathol, 1989

FGG Uptake in histological subtype of NHL

Subtype of Lymphoma	Uptake
DLBCL	High
FL (grade1-3)	Low to High
MCL	Low to Moderate
MZL(including MALT)	none to High
SCL	none or Low
Extranodal NK/T lymphoma	High
(a wide range of max SUVs in simmilar lymphoma)	

Marrow uptake positive

1. \geq uptake into the liver,
Provided the liver uptake was greater than background.
2. Focal disease only within the marrow,
differentiated from those with diffusely abnormal marrow change.

Blood V.91, N.9, 1998

Characters

AML	2
ATL	1
DLBCL	10
FL	5
HD	1
Castlem.	1
MDS	4
MMK	1
MM	4
NK	1
PTCL	1
	31

FM	M
9	22

median 65y
19-82y

Infiltrate and SUV of all cases

		SUV in Iliac Bone		SUV in Femur Bone	
Infiltrated Abnormal cells%		right	left	right	left
$0 \leq <1$	0.2	1.63	1.87	1.49	0.93
$1 \leq <10$	3.3	1.82	1.96	1.16	1.17
$10 \leq <50$	16.4	3.18	2.65	3.15	2.51
$50 \leq <100$	76.4	2.97	2.97	2.24	2.4

DLBCL _{N=7}

Infiltrated Abnormal cells%	SUV in Iliac Bone		SUV in Femur Bone	
	right	left	right	left
$0 \leq < 1$	1.2	0.62	0.96	1
$1 \leq < 10$	1.5	1.6	0.82	0.78
$10 \leq$	4.2	3.3	4.4	3.7

FL, MM, Castleman

	FL(=4), MM(=3), Castleman (=1)			
Infilt. Cells(%)	SUV in Iliac Bone		SUV in Femur B.	
	r	l	r	l
0 ~ <1	1.7	2.5	2.1	1.1
1 ≤ ~ <10	1.7	1.4	1	1.1
50 ≤	1.7	1.5	1.3	1.1

Infiltrate and SUV of MDS

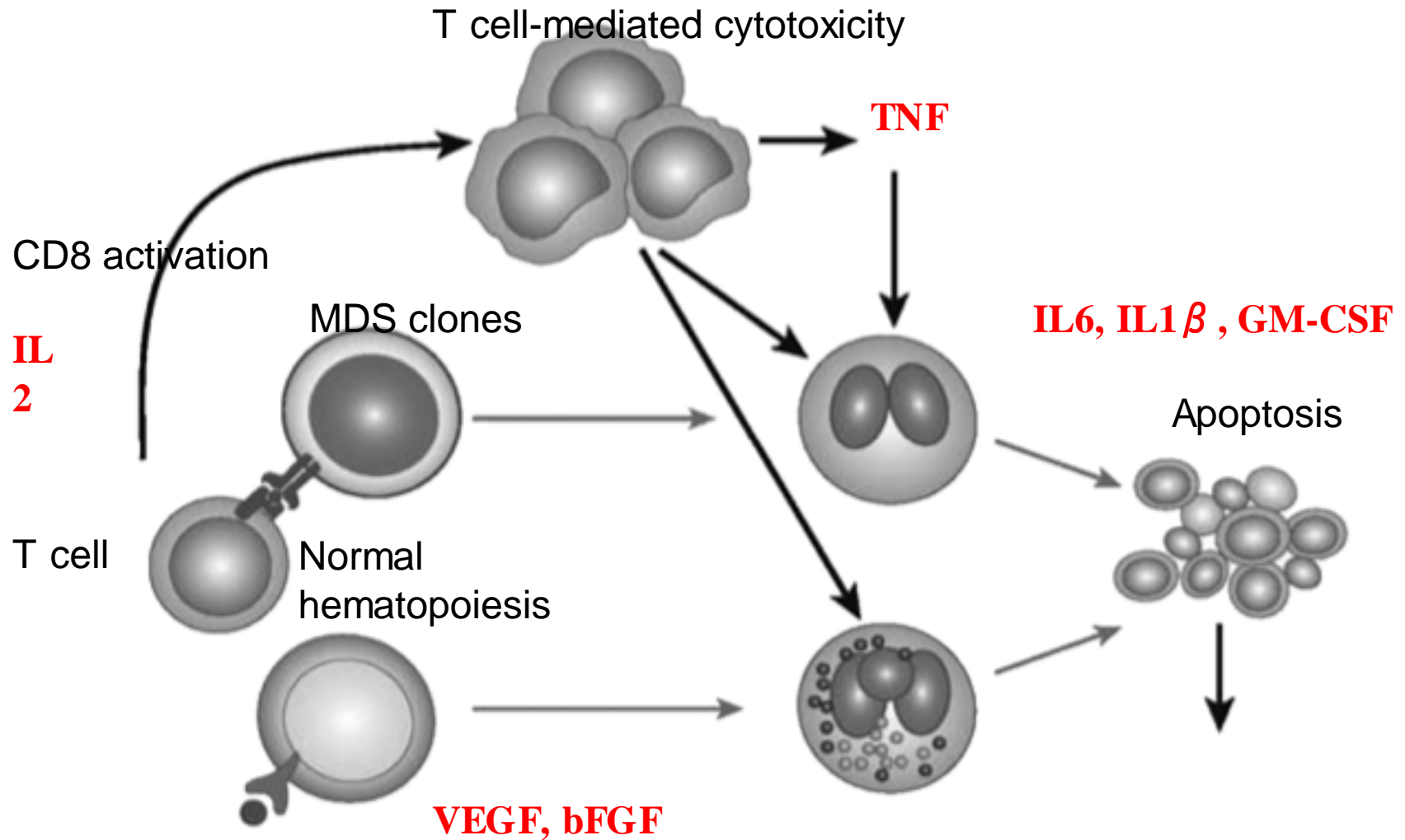
Infiltrated Abnormal cells%	SUV in Iliac Bone		SUV in Femur Bone	
	right	left	right	left
3.2	3.2	3.3	2.3	2.2
1.1	2.7	2.6	1.4	1.6
2.1	2.3	2.3	2	1.7

**Level of 10% ~ infiltrations of DLBCL
over of Indolent lymphoma, myeloma**

Results

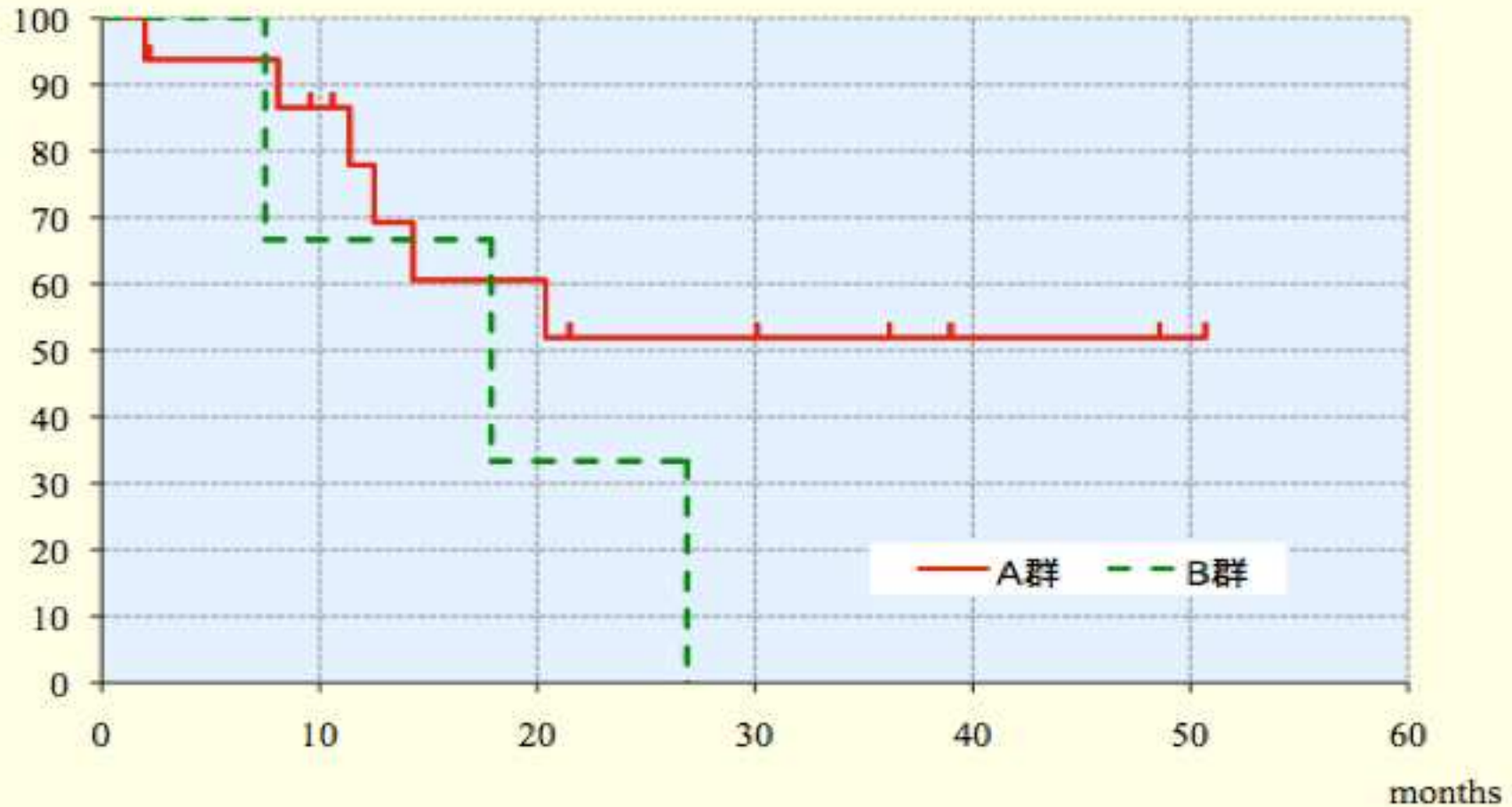
1. DLBL : 浸潤細胞の増加に伴いSUVも高くなる。
2. Indolent Lymphoma, Multiple Myeloma, 炎症性リンパ節炎では、浸潤細胞の増加によるSUVの上昇はなく、低い値を示す。
3. MDS : 腫瘍細胞の%に比較にSUVは高い
Indolent Lymphomaより高い。
DLBCLの高い浸潤と相当する高さである。

Immunological pathology of MDS



Overall survival of MDS

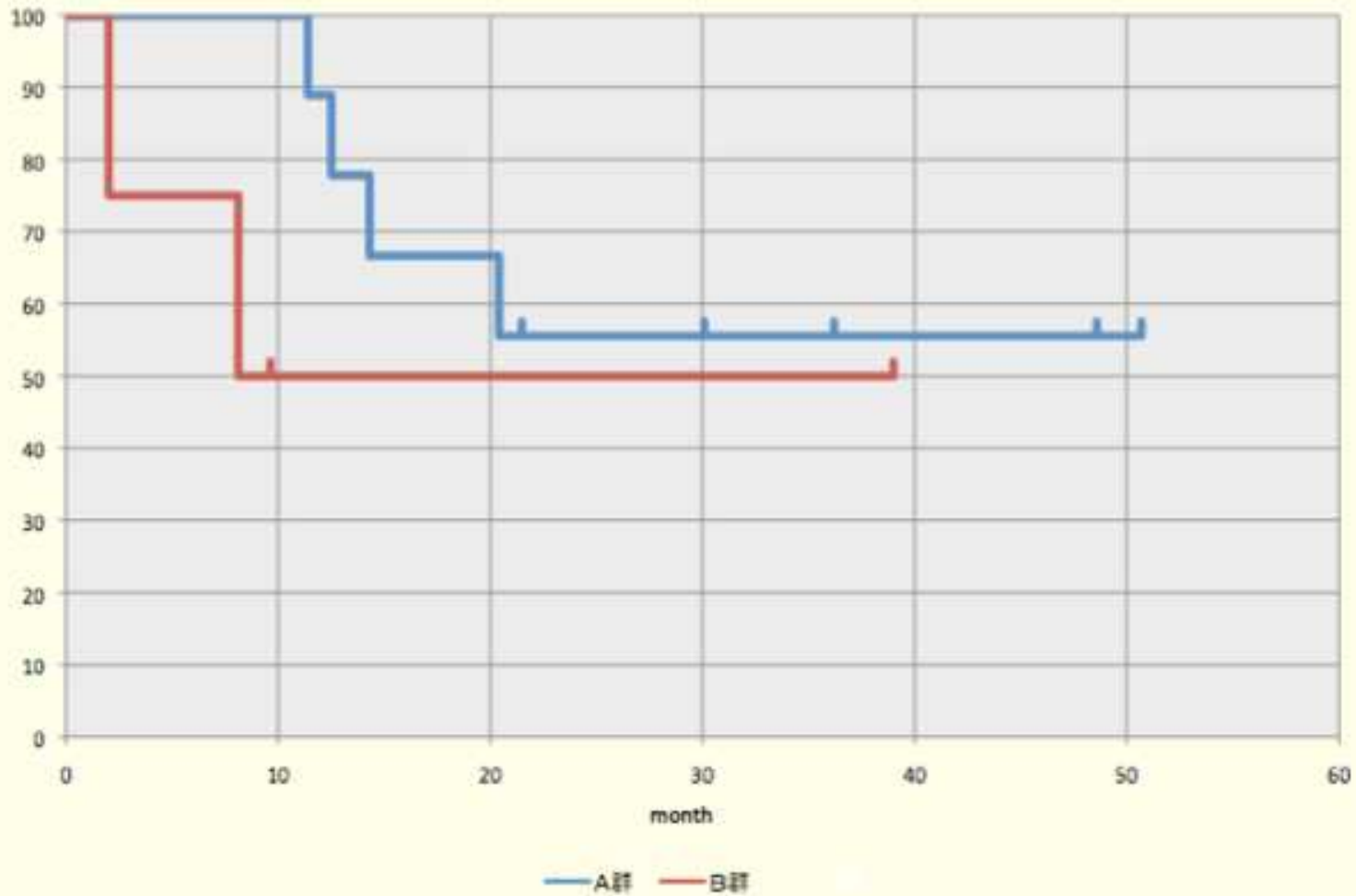
Probabilities



A (Red) =Thalidomide, B(Green) =non-thalidomide, Log rank p=0.142

Overall survival according to the low & high risk of IPSS

Probabilities



A=low risk MDS, B=high risk MDS, Log rank $p=0.010$

Summary

1. FDG-PETは骨髄浸潤の腫瘍細胞の組織学的診断を反映する。
2. PDG-PETの持つ機能的診断方法は、動的病態の判断など臨床上有益な可能性がある。
3. Myelodysplastic Syndromeに関するPDG-PETの結果を検討し、その臨床的意義を検討した。

Acknowledgement

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成人病センター石川先生

FDG-PETの**SUV**を計測頂いた

森ノ宮クリニック長谷川先生

陳謝致します。