

Table S1. Patient characteristics at the time of diagnosis.

non-Hodgkin's lymphomas (n=41)

Factor	DLBCL				
	ABC	GBC	MCL	CLL/SLL	FL
Gender					
Male	16	1	3	2	1
Female	8	4	2	4	
Age (years)					
>60	14	1	3	4	
<60	10	4	2	2	1
LDH					
Increased	17	4	4	4	
Normal	7	1	1	2	1
B symptoms					
Yes	24	4	5	4	
No		1		2	1
Clinical stage					
I+II	11	2	1		
III+IV	13	3	4	6	1
IPI score					
High-risk	24		4	1	
median high-risk		5		1	1
Low-risk			1	4	
Myelodysplasia					
Yes	10	1	4	3	1
No	14	4	1	3	
Anemia					
Yes	7	1			
No	17	4	5	7	

DLBCL, diffuse large B cell lymphoma;

ABC, activated B-cell like; GBC, germinal center B-cell like;

MCL, mantle cell lymphoma;

CLL/SLL, chronic lymphocytic leukemia/small lymphocytic lymphoma;

LDH, lactate dehydrogenase; IPI, International Prognostic Index.

Myelodysplastic syndromes (n=19)

Factor	Value
Gender	
Male	0
Female	10
Age (years)	
>60	15
<60	4
Hemoglobin, g/L	80(72-91)
WBC count, × 10 ³ /L	4,9(4-6,25)
ANC, /dL	4(2,9-5,3)
Circulating blast count, %	0(0-4)
Platelet count, × 10 ³ /L	140(97,5-182)
LDH (conversion), mg/L	188(128,25-380)
Bone marrow cellularity, %	70(55-75,25)
Bone marrow blasts, %	<5
MDS subtype	
RCUD	8
RAEB	3
RCMD	3
RARS	4
MDS-U	1
Cytogenetic risk group	
Good	
Normal	9
Intermediate	7
Poor	3
R-IPSS risk category	
Very low	7
Low	3
Intermediat	4
High	2
Very high	3

Values are presented as number (%) or median (range).

WBC, white blood cells; ANC, absolute neutrophil count; LDH -Lactate dehydrogenase;

MDS, myelodysplastic syndrome; RCUD, refractory cytopenia with unilineage dysplasia;

RARS, refractory anemia with ringed sideroblasts; RCMD, refractory cytopenia with multilineage dysplasia;

RAEB, refractory anemia with excess of blasts; MDS-U, myelodysplastic syndrome-unclassifiable;

R-IPSS, revised international prognostic scoring syste

non-cancerous blood diseases (n=58)

Factor	Value
Gender	
Male	23
Female	35
Age (years)	
>60	11
<60	47
Hemoglobin, g/L	90(76,25-110)
WBC count, × 10 ³ /L	6,7(4,7-9,1)
ANC, /dL	5(3,2-7)
Platelet count, × 10 ³ /L	200,5(125,75-280)
Iron-deficiency anemia	33
hemolytic anemia	3
B12 deficiency anemia	5
chronic disease anemia	6
immune thrombocytopenia	10
aplastic anemia	1

Values are presented as median (range).

Table S2. The sequences of primers and miRNA probes.

Target	Type	Sequence (5' → 3')
miR-145-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	CGTGTCGCCTTGTAGCACGACCTTATTCGCACCCTCGACACGA CAGGGATTCC GCCTTGTAGCACGACCTTA (R6G)-TTCGCACCC(T-BHQ1)CGACACGACAGGGATTCC ACACGTCCAGTTTTCCAG
miR-155-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCAGAGCGCTCTTCTAGCACCCTATCTACCTACCTCGCTCT GACACCCCTA GCTCTTCTAGCACCCTCTA (R6G)-TCCTACCC(T-BHQ1)CGCTCTGACACCCCTA CCCAGCTTAATGCTAATCGTGA
miR-451a	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCTCGACACG ACAACCTCAGT CTGAGGCTCACTGAGACCT (R6G)-ATTCGCACC(T-BHQ1)CGACACGACAACCTCAGTA CCAGCAAACCGTTACCATT
let-7a-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGACACAATTTCGCACCCTCGACACG ACAACCTATAC CTGAGGCTCACTGACACAA (R6G)-C+C+C+T+CGA+CACGACAACCTATAC-(BHQ1) CAGCACTGAGGTAGTAGGTT
miR-1246	RT primer	CGTGTCGCCTTGTAGCACGACCTTATTCGCACCTCGACACGAC CTCCTGCT

	Reverse PCR primer PCR probe Forward PCR primer	GCCTTGTAGCACGACCTTA (R6G)-TTCGCACC(T-BHQ1)CGACACGACCTCCTGCT ACACGCGAATGGATTTTTGG
miR-126-3p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCTCGACACG ACCGCATTATT CTGAGGCTCACTGAGACCT (R6G)-ATTCGCACC(T-BHQ1)CGACACGACCGCATTATT TCTCACTCGTACCGTGAGT
miR-150-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCTCGACACG ACCACTGGTAC GTGAAGCAGACAGACACAA (R6G)-TCGCACC(T-BHQ1)CGACACGACCACTGGTAC CACGCTCCGACTCTCCCAACCCTT
miR-16-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCTCGACACG ACCGCCAATA CTGAGGCTCACTGAGACCT (R6G)-ATTCGCACC(T-BHQ1)CGACACGACCGCCAATA CCAGCTAGCAGCACGTAAA
miR-181a-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCTCGACACG ACACCCACCG CTGAGGCTCACTGAGACCT (R6G)-ATTCGCACC(T-BHQ1)CGACACGACACCCACCG CCAGCAACATTCATTGCTGT
miR-185-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACGATCGCACCCCTCGACACG ACTCAGGAAC CTGAGGCTCACTGAGACG (R6G)-TCGCACCC(T-BHQ1)CGACACGACTCAGGAAC CTACACTGGAGAGAAAGGCA
miR-191-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCTCGACACG ACCAGCTGCT CTGAGGCTCACTGAGACCT (R6G)-ATTCGCACC(T-BHQ1)CGACACGACCAGCTGCT CAGCCAACGGAATCCCAA
miR-199b-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCCCTCGACAC GACGAACAGATA CTGAGGCTCACTGAGACCT (R6G)-ATTCGCACCC(T-BHQ1)CGACACGACGAACAGATA TCAGCCCCAGTGTTTAGAC
miR-26a-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	CGTGATGCGCCTTGTAGCACGACCTTATTCGCACCCCTCGCATC ACGAGCCTATC GCCTTGTAGCACGACCTTA (R6G)-TTCGCACCC(T-BHQ1)CGCATCACGAGCCTATC CGAGCCATTCAAGTAATCCAG
miR-378-3p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTATTCGCACCTCGACACG ACGCCTTCTG CTGAGGCTCACTGAGACCT (R6G)-ATTCGCACC(T-BHQ1)CGACACGACGCCTTCTG CTGAGGCTCACTGAGACCT

miR-96-5p	RT primer Reverse PCR primer PCR probe Forward PCR primer	GTCGTGTCTGAGGCTCACTGAGACCTTTCGCACCCTCGACACG ACCAGCAAAAATG CTGAGGCTCACTGAGACCT (R6G)-TTCGCACCC(T-BHQ1)CGACACGACCAGCAAAAATG CGGACTTTGGCACTAGCA
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(+C=C-LNA; +T=T-LNA; R6G -Rhodamine 6G (Rhodamine 590); BHQ1 - Black Hole Quencher-1; LNA - Locked Nucleic Acid).

Table S3. List of microRNAs suitable for analysis.

MiRNAs suitable for analysis.	MiRNAs, the number of which were different in the comparison groups (differential expression in the comparison groups showed more than a 3-fold difference).
hsa-let-7a-5p hsa-let-7b-5p hsa-let-7c-5p hsa-let-7d-5p hsa-let-7e-5p hsa-let-7f-5p hsa-let-7g-5p hsa-let-7i-5p hsa-miR-106a-5p/miR-17-5p hsa-miR-106b-5p hsa-miR-107 hsa-miR-1183 hsa-miR-1246 hsa-miR-125b-5p hsa-miR-126-3p hsa-miR-1260a hsa-miR-1299 hsa-miR-1310a-3p hsa-miR-140-5p hsa-miR-142-3p hsa-miR-144-3p hsa-miR-145-5p hsa-miR-146a-5p hsa-miR-148a-3p hsa-miR-148b-3p hsa-miR-150-5p hsa-miR-155-5p hsa-miR-15a-5p hsa-miR-15b-5p hsa-miR-16-5p hsa-miR-181a-5p hsa-miR-185-5p hsa-miR-186-5p hsa-miR-18a-5p	hsa-let-7a-5p hsa-let-7c-5p hsa-let-7e-5p hsa-let-7f-5p hsa-miR-106a-5p/miR-17-5p hsa-miR-107 hsa-miR-1183 hsa-miR-1246 hsa-miR-125b-5p hsa-miR-126-3p hsa-miR-1260a hsa-miR-1299 hsa-miR-130a-3p hsa-miR-144-3p hsa-miR-145-5p hsa-miR-146a-5p hsa-miR-148a-3p hsa-miR-148b-3p hsa-miR-150-5p hsa-miR-155-5p hsa-miR-16-5p hsa-miR-181a-5p hsa-miR-185-5p hsa-miR-18a-5p hsa-miR-190a-5p hsa-miR-1910-5p hsa-miR-194-5p hsa-miR-199a-3p/miR-199b-3p hsa-miR-199a-5p hsa-miR-199b-5p hsa-miR-19a-3p hsa-miR-20a-5p/miR-20b-5p hsa-miR-22-3p hsa-miR-221-3p

hsa-miR-190a-5p	hsa-miR-222-3p
hsa-miR-191-5p	hsa-miR-223-3p
hsa-miR-1910-5p	hsa-miR-23a-3p
hsa-miR-194-5p	hsa-miR-24-3p
hsa-miR-199a-3p/miR-199b-3p	hsa-miR-25-3p
hsa-miR-199a-5p	hsa-miR-26a-5p
hsa-miR-199b-5p	hsa-miR-29a-3p
hsa-miR-19a-3p	hsa-miR-29c-3p
hsa-miR-19b-3p	hsa-miR-30b-5p
hsa-miR-20a-5p/miR-20b-5p	hsa-miR-30d-5p
hsa-miR-21-5p	hsa-miR-30e-3p
hsa-miR-22-3p	hsa-miR-30e-5p
hsa-miR-221-3p	hsa-miR-32-5p
hsa-miR-222-3p	hsa-miR-361-5p
hsa-miR-223-3p	hsa-miR-363-3p
hsa-miR-23a-3p	hsa-miR-374b-5p
hsa-miR-24-3p	hsa-miR-376a-3p
hsa-miR-25-3p	hsa-miR-424-5p
hsa-miR-26a-5p	hsa-miR-425-5p
hsa-miR-26b-5p	hsa-miR-4454/miR-7975
hsa-miR-29a-3p	hsa-miR-451a
hsa-miR-29b-3p	hsa-miR-486-3p
hsa-miR-29c-3p	hsa-miR-491-5p
hsa-miR-30b-5p	hsa-miR-493-3p
hsa-miR-30c-5p	hsa-miR-506-3p
hsa-miR-30d-5p	hsa-miR-93-5p
hsa-miR-30e-3p	hsa-miR-98-5p
hsa-miR-30e-5p	hsa-miR-99a-5p
hsa-miR-32-5p	
hsa-miR-342-3p	
hsa-miR-361-5p	
hsa-miR-362-5p	
hsa-miR-363-3p	
hsa-miR-374a-5p	
hsa-miR-374b-5p	
hsa-miR-376a-3p	
hsa-miR-378	
hsa-miR-423-5p	
hsa-miR-424-5p	
hsa-miR-425-5p	
hsa-miR-4454/miR-7975	
hsa-miR-451a	
hsa-miR-486-3p	
hsa-miR-491-5p	
hsa-miR-493-3p	
hsa-miR-506-3p	
hsa-miR-93-5p	
hsa-miR-96-5p	
hsa-miR-98-5p	
hsa-miR-99a-5p	

Table S4. The list of experimentally confirmed genes targeted by miRNAs. The list was generated by DIANA-TarBase v8.

miRNA	Experimentally confirmed miRNA targets
let-7a-5p	GARS, HMGA2, DICER1, NAP1L1, CRY2, OXA1L, ZFP36, BACH1, REV3L, TRIB1, VEZT, PATL1, HMGCS1, ATP6V1F, ACTG1, PPP1R15B, NFAT5, ACTB, CNOT1, RC3H2, ZFP3CL1, SEL1L, YOD1, SKIL, COL1A2, COL3A1, TGFBR1, PAPP, PPP1R15B, MAPK6, PXT1, CCDC71L, IRS2, ERCC6, RANBP6, PGRMC1, PDX, ARID3A, MARS2, RBFOX2, SEMA4C, SENP5, IGF2BP2, GPCPD1, SMARCC1, CERCAM, THBS1
miR-26a-5p	HMGA1, HMGA2, AHNAK, DDX17, TNRC6A, TNRC6B, KPNA2, MCL1, VMA21, VGLL4, YWHAE, EIF4G2, EEF2, FBXO11, TNPO1, CSK3B, LARP1, KLHL42, STYX, SLC7A11, PRKCD, NABP1, CDK8, ZDHHC6, ATAD2B, CHAC1, FRAT2, TOB1, CCDC6, FLVCR1, BAG4, MSMO1, ZSWIM6, ANKS1A, RSPRY1, TBC1D15, DDX3X, OSBPL11, PTGS2, NTN4, INHBA, HOHA9, HSPA4L, ANL2, B3GNT5, MAT2A, RLF, PIM1, TNPO1, PHHX, FAM8A1, AGPAT5, DDX3Y, SERBP1, TET1, MTPN, CREBL2, EIF4G2, ADAM10, SETD8, ATPAF1, SFPQ, DTD2, FAM46C, SFXN1, COMMD8, NCEH1, CREB1, FGF9, ANKIB1, TOP1, ZNF724P, TNKS2
miR-181a-5p	K MCL1, COPS2, HSPA8, ZFAND3, G3BP2, SLC38A2, SLC2A3, BUB3, CCSAP, FOS, KDELR2, RPS18, RPS4X, BHLHE40, BIRC6, CUL5, LIN28B, WASL, TBPL1, GPCPD1
miR-185-5p	VEGFA, EIF4EBP2, POL2R2A, PPAP2B, IGFBP5, ENAH
miR-96-5p	FEM1B, KPNB1, GINM1, VAMP3
miR-199b-5p	ELP2, MGAT4B, RASSF3
miR-145-5p	ACTB, FBN1, LTA4H, RAD23B
miR-150-5p	LDLR, PDE7A